

ICF-CD855V

SERVICE MANUAL

US Model

Ver 1.0 2004.02



Model Name Using Similar Mechanism	ICF-CD73V
Optical Pick-up Block Name	KSM-900AAA
Optical Pick-up Name	KSS-900A

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
With 8-ohm loads, both channels driven from 100 – 10 000 Hz; rated 1.0 W per channel-minimum RMS power, with no more than 10% total harmonic distortion in AC operation.

CD player section

System: Compact disc digital audio system

Laser diode properties:

Material: GaAlAs
Wavelength: 780 nm
Emission duration: Continuous
Laser output: Less than 44.6 μ W
(This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.)

Frequency response: 20-20 000 Hz $_{-1.5}^{+1}$ dB

Wow and flutter: Below measurable limit

Radio section

Frequency range:

TV: 2 – 13 ch
WEATHER: 1 – 7 ch
FM: 87.5 – 108 MHz
AM: 530 – 1 710 kHz

General

Time display: 12-hour system

Speaker: 50 mm (2 inches) dia., 8 Ω

Outputs: $\oslash$ (headphones) jack (ϕ 3.5 mm stereo minijack)

Power outputs:

1 W + 1 W (at 10% harmonic distortion)

Power requirements: 120 V AC, 60 Hz

Dimensions:

Approx. 169 $\times$ 165 $\times$ 217 mm (w/h/d)
(Approx. 6 $\frac{3}{4}$ $\times$ 6 $\frac{1}{2}$ $\times$ 8 $\frac{5}{8}$ inches) incl. projecting parts and controls

Mass: Approx. 1 700 g (3 lb 12 oz)

Design and specifications are subject to change without notice.

TV/WEATHER/FM/AM CD CLOCK RADIO

9-877-569-01

2004B05-1

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Personal Audio Company

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Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

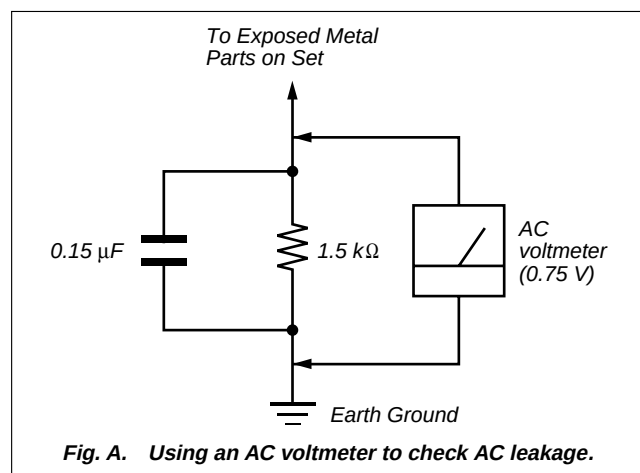
SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer: Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers’ instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)



CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead. (Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)



: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.
Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time. Soldering irons using a temperature regulator should be set to about 350 °C.
Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

About CD-Rs/CD-RWs

This unit is compatible with CD-Rs/CD-RWs but playback capability may vary depending on the quality of the disc, the recording device and application software.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK $\triangle$ OR DOTTED LINE WITH MARK $\triangle$ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1

SERVICING NOTES

TABLE OF CONTENTS

1. SERVICING NOTES	3
2. GENERAL	4
3. DISASSEMBLY	
3-1. Disassembly Flow	5
3-2. Cabinet (Rear) Block	5
3-3. Cabinet (Upper) Block	6
3-4. CD Board	6
3-5. Optical Pick-up Block (KSM-900AAA)	7
3-6. Optical Pick-up (KSS-900A)	7
3-7. MAIN Board	8
3-8. Speaker (SP101/SP201)	9
3-9. CD Lid Block	9
4. TEST MODE	10
5. ELECTRICAL ADJUSTMENTS	13
6. DIAGRAMS	
6-1. Block Diagram – CD Section –	16
6-2. Block Diagram – TUNER Section –	17
6-3. Block Diagram – MAIN Section –	18
6-4. Note for Printed Wiring Boards and Schematic Diagrams	19
6-5. Printed Wiring Boards – CD Section –	20
6-6. Schematic Diagram – CD Section –	21
6-7. Printed Wiring Board – TUNER Board –	22
6-8. Schematic Diagram – TUNER Board –	23
6-9. Printed Wiring Boards – PANEL Section –	24
6-10. Printed Wiring Board – MAIN Section –	25
6-11. Schematic Diagram – MAIN Section (1/2) –	26
6-12. Schematic Diagram – MAIN Section (2/2) –	27
7. EXPLODED VIEWS	
7-1. Overall Section	33
7-2. Cabinet (Rear) Block Section	34
7-3. CD Lid Section	35
7-4. LCD Section	36
7-5. Cabinet (Upper) Section	37
7-6. KEY Board Section	38
7-7. Cabinet (Lower) Block Section	39
7-8. Speaker Section	40
7-9. Optical Pick-up Section (KSM-900AAA)	41
8. ELECTRICAL PARTS LIST	42

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.

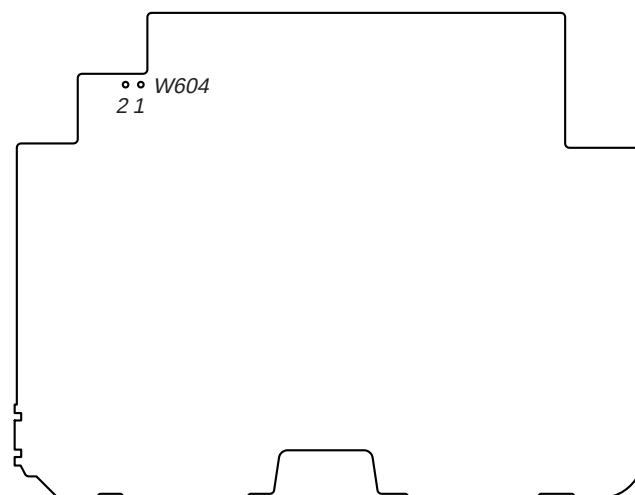
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

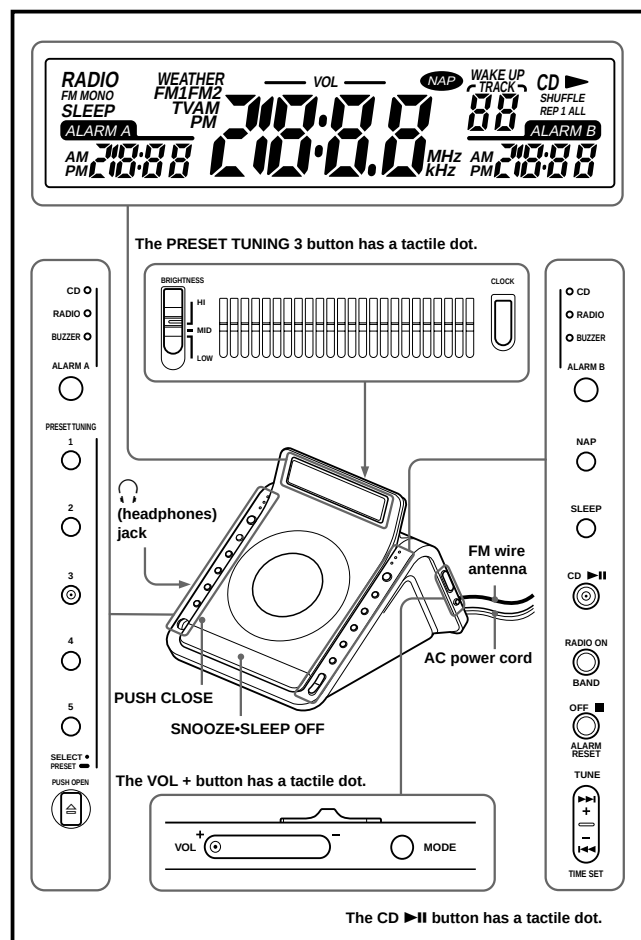
- In performing the repair with the power supplied to the set, removing the MAIN board causes the set to be disabled.
In such a case, short between 1 and 2 pins of the W604 on the MAIN board using a lead wire.

– MAIN Board (Conductor Side) –



SECTION 2 GENERAL

This section is extracted from instruction manual.



Features

- TV/WEATHER/FM/AM 4 band PLL (phase locked loop) synthesized clock radio
- Easy preset digital tuning with 25 memory presets
- Built-in CD player with CD-R/RW playback function
- Dual alarm
- Triple time display – main display for the clock, and two alarm sub-displays
- Nap timer – count down timer (10, 20, 30, 60, 90, 120 minutes)
- Extendable Snooze time from 10 to 60 minutes
- LCD with brightness adjustment backlight (High/Middle/Low)

Setting the Brightness of the Backlight

Slide **BRIGHTNESS** to select HI (high), MID (middle) or LOW for the display according to your preference.

Setting the Clock

- 1 Plug in the clock radio.
The display will flash "AM 12:00".
- 2 Press **CLOCK** for a few seconds.
You will hear a beep and the hour will start to flash in the display.
- 3 Press **TUNE•TIME SET +** or **-** until the correct hour appears in the display.
- 4 Press **CLOCK** once.
You can set the minutes in the same way as the hour.
After setting the minutes, press **CLOCK** to start the clock, and you will hear two short beeps.

To set the current time rapidly, hold down **TUNE•TIME SET +** or **-**.

In step 4, when you press **CLOCK** after the minute setting to activate the clock, the seconds start counting from zero.

Notes

- The clock setting will be cancelled if you press **OFF ■•ALARM RESET** while setting the clock.
- If you do not press a button for about 1 minute while setting the clock, the clock setting will be cancelled.

Setting the Alarm

This clock radio is equipped with 3 alarm modes—CD, radio and buzzer. Before setting the alarm, make sure to set the clock (see "Setting the Clock").

To Set the Alarm Time

- 1 Press **ALARM A** or **B** for a few seconds.
After one beep, "ALARM" and the hour will flash on the display.
- 2 Press **TUNE•TIME SET +** or **-** until the desired hour appears.
To set the hour rapidly, hold down **TUNE•TIME SET +** or **-**.
- 3 Press **ALARM A** or **B**.
After one beep, the minutes will flash.
- 4 Repeat step 2 to set the minutes and press **ALARM A** or **B**.
After one beep, the alarm mode is entered.
- 5 Press **TUNE•TIME SET +** or **-** until the desired alarm indicator flashes.
You can choose one mode among "CD," "RADIO" and "BUZZER." Set the alarm mode as follows:
– CD: see "[A] Setting the CD Alarm."
– RADIO: see "[B] Setting the Radio Alarm."
– BUZZER: see "[C] Setting the Buzzer Alarm."

[A] Setting the CD Alarm

For the CD alarm, the track you specified as the wake-up track is played first.
(If the CD play mode is set to "SHUFFLE" or "SHUFFLE REP," however, all the tracks are played in random order.)

- 1 Perform steps 1 to 5 in "To set the Alarm Time."
- 2 Press **ALARM A** or **B** to select "CD" alarm mode.
After one beep, "WAKE UP TRACK" appears on the display.
- 3 Press **TUNE•TIME SET +** or **-** to select the desired wake-up track number.
- 4 Press **ALARM A** or **B**.
After one beep, "WAKE UP VOLUME" will flash.
- 5 Press **TUNE•TIME SET +** or **-** to adjust the volume.
You can also adjust the volume using **VOL +** or **-**.
- 6 Press **ALARM A** or **B**.
Two short beeps will confirm the setting. If the CD indicator does not light, press **ALARM A** or **B** to light the CD indicator, and the CD will start at the set time.

[B] Setting the Radio Alarm

For the radio alarm, the station you specified as the wake-up station is played.

- 1 Perform steps 1 to 5 in "To set the Alarm Time."
 - 2 Press **ALARM A** or **B** to select "RADIO" alarm mode.
"WAKE UP STATION" appears and the preset number flashes on the display.
 - 3 Press **TUNE•TIME SET +** or **-** to select the desired wake-up station.
Preset number changes in the order as follows:
- "P-" is the last received station.
You can directly select the desired wake-up station by pressing **RADIO ON•BAND** or the **PRESET TUNING** button while the indication "P-" is not displayed.

- 4 Press **ALARM A** or **B**.
After one beep, "WAKE UP VOLUME" will flash.
- 5 Press **TUNE•TIME SET +** or **-** to adjust the volume.
You can also adjust the volume using **VOL +** or **-**.
- 6 Press **ALARM A** or **B**.
Two short beeps will confirm the setting. If the RADIO indicator does not light, press **ALARM A** or **B** to light the RADIO indicator, and the radio will start at the set time.

[C] Setting the Buzzer Alarm

- 1 Perform steps 1 to 5 in "To set the Alarm Time."
- 2 Press **ALARM A** or **B** to select "BUZZER" alarm mode.
Two short beeps will confirm the setting. If the BUZZER indicator does not light, press **ALARM A** or **B** to light the BUZZER indicator, and the buzzer will sound at the set time.

ALARM ON—

Press **ALARM A** or **B** to activate the alarm setting. If the setting indicator does not light, the alarm setting is not activated. You can only check the alarm setting when it is activated.

If you set the CD alarm and there is no disc in the CD player, the buzzer alarm will sound in its place at the time set.

For the alarm, the beeping of the alarm becomes more rapid after every few seconds in three progressive stages.

When headphones (not supplied) are plugged into the unit, the alarm will not sound through the speakers regardless of the alarm mode setting.

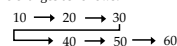
Note

When Alarm A and Alarm B are set for the same time, the Alarm A takes precedence.

To Doze for a Few More Minutes

Press SNOOZE-SLEEP OFF.

The CD, radio or buzzer alarm turns off but will be automatically activated again after about 10 minutes. Every time you press **SNOOZE-SLEEP OFF**, the snooze time changes as follows:



The display shows the snooze time for a few seconds and returns to show the current time. When you press **SNOOZE-SLEEP OFF** after the current time appears, the snooze time starts from 10 minutes again.

The maximum length of the snooze time is 60 minutes.

ALARM OFF—

Press **ALARM A** or **B** to deactivate the alarm setting.

The CD, radio, or buzzer alarm is turned off automatically after 60 minutes.

To Stop the Alarm

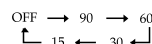
Press **OFF ■•ALARM RESET** to turn off the alarm. The alarm will come on again at the same time the next day.

Setting the Sleep Timer

You can fall asleep to the CD or the radio using the built-in sleep timer to turn off the CD or the radio automatically after a preset duration.

Press **SLEEP** during CD or radio play.

You can set the sleep timer to durations of 90, 60, 30, or 15 minutes. Every push changes the display as follows:



"SLEEP" will appear in the display when the duration time is set.

The CD or the radio will play for the time you set, then shut off.

When the sleep timer reaches a remaining time of a few minutes, "SLEEP" will flash in the display and the sound output will gradually decrease in volume (Gentle Sleep function).

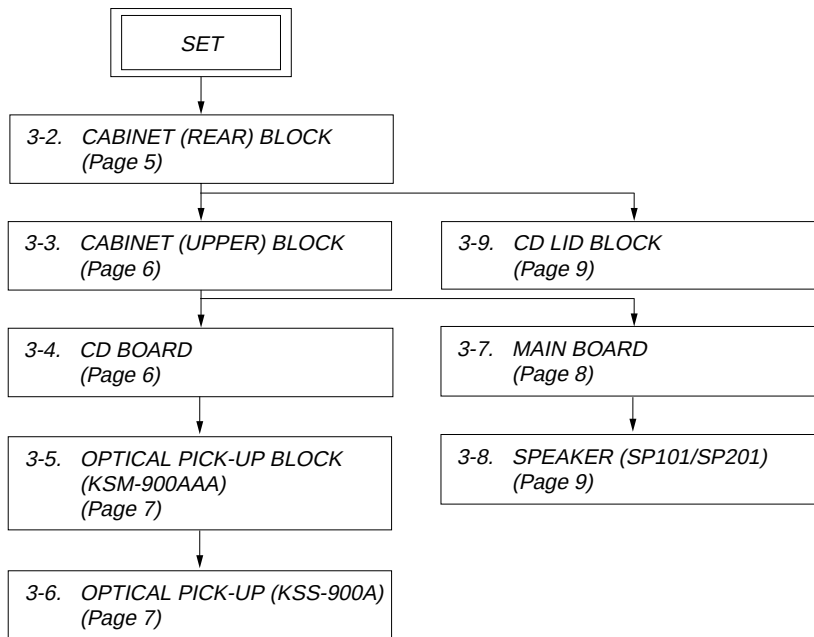
If you press **VOL +** or **-** at this time, "SLEEP" will light up and the decrease in the volume will stop.

To turn off the CD or the radio before the preset time, press **SNOOZE-SLEEP OFF**.

SECTION 3 DISASSEMBLY

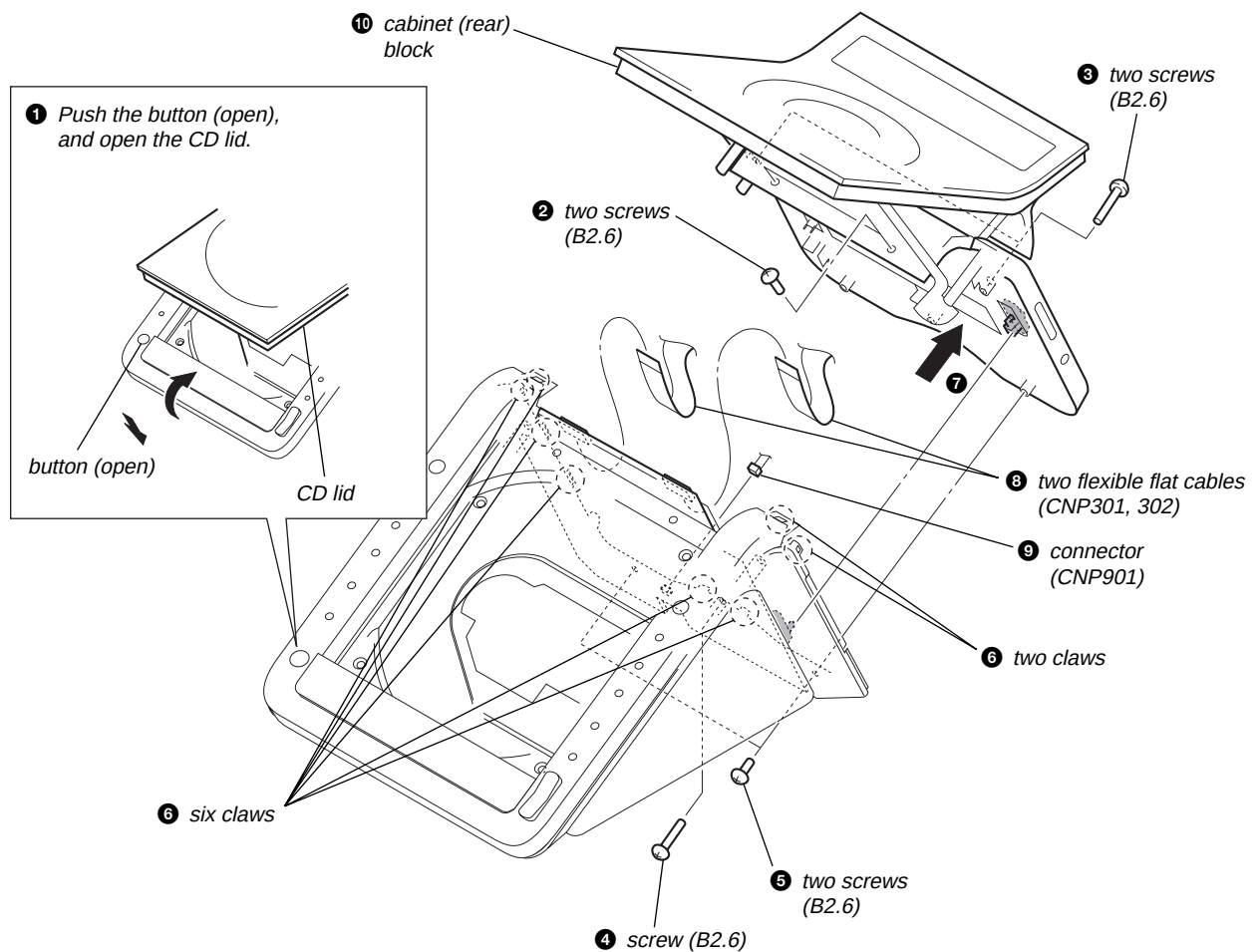
• This set can be disassembled in the order shown below.

3-1. DISASSEMBLY FLOW

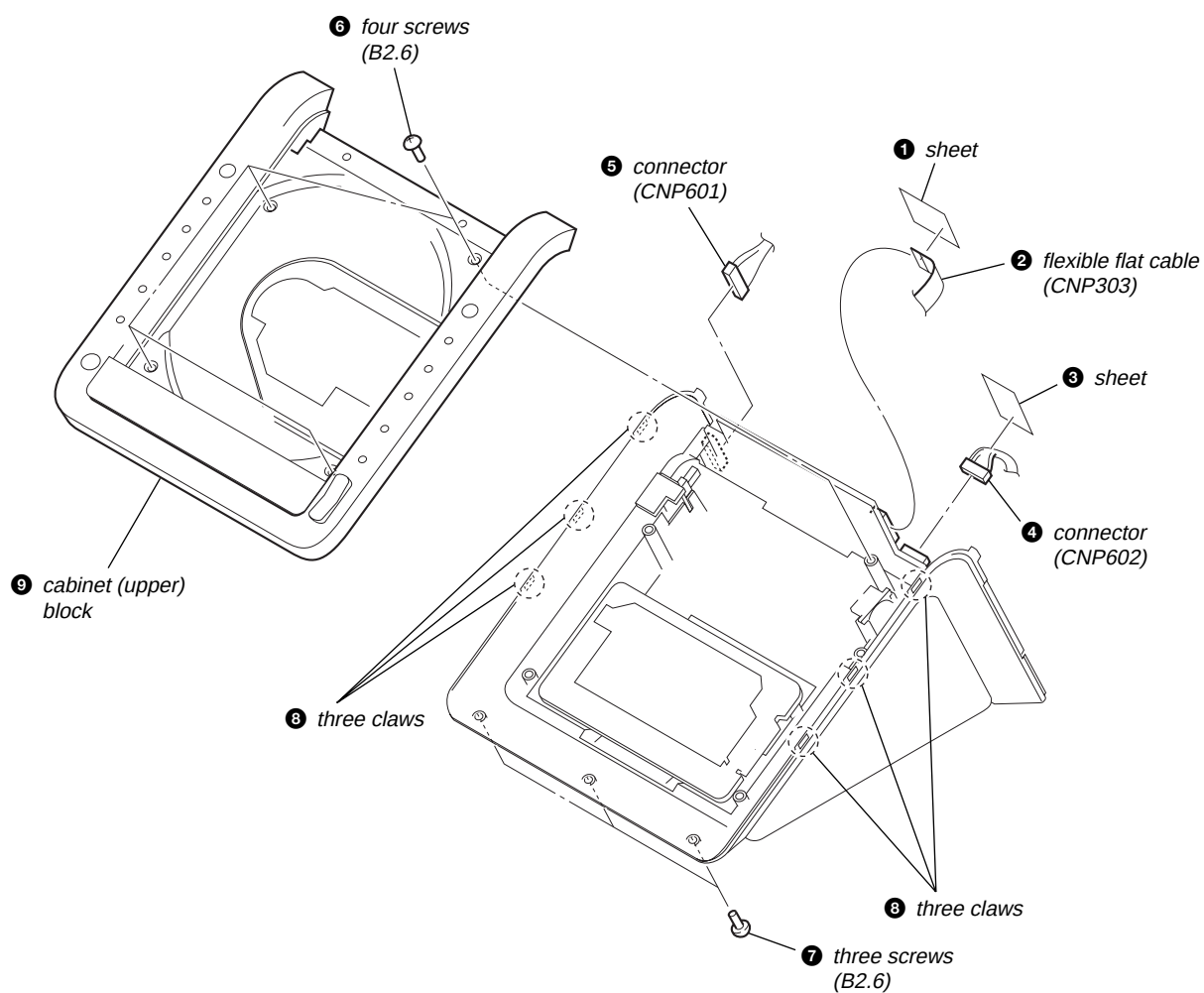


Note: Follow the disassembly procedure in the numerical order given.

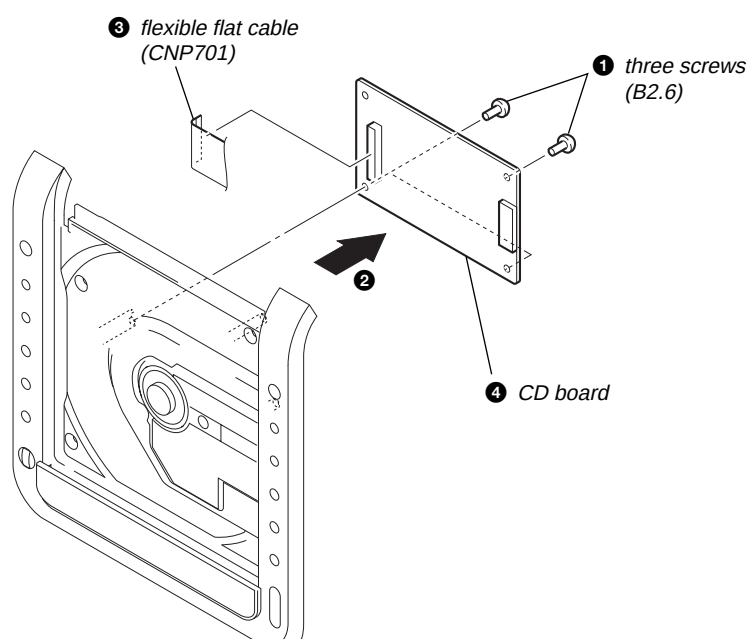
3-2. CABINET (REAR) BLOCK



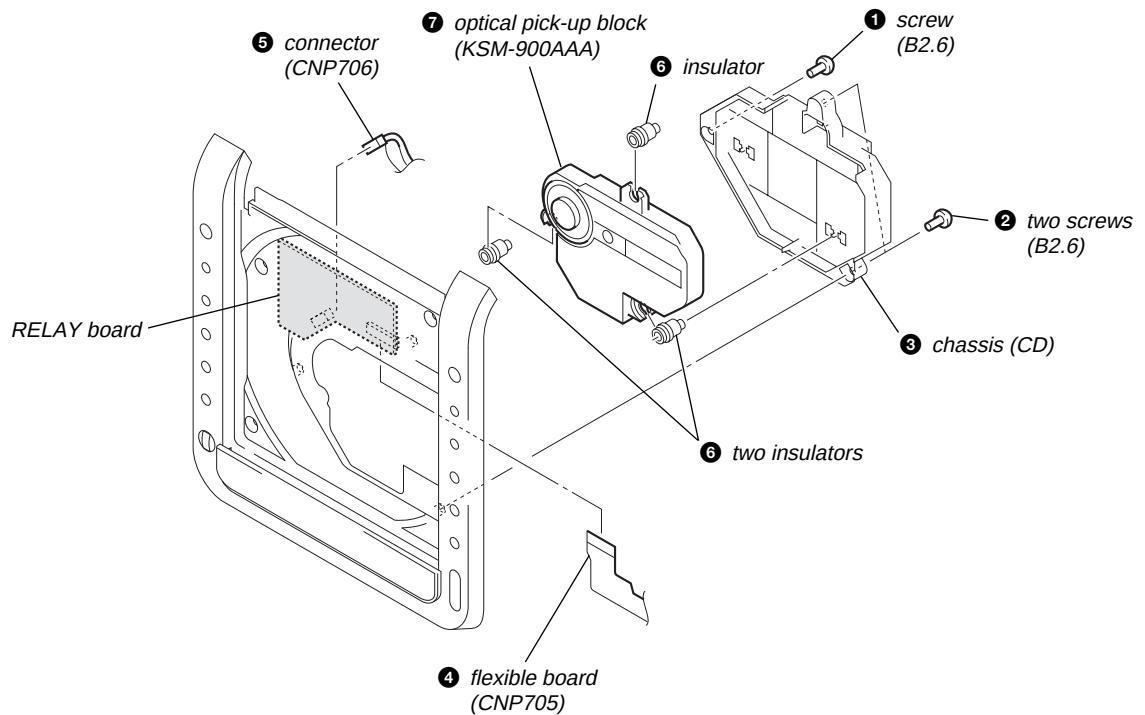
3-3. CABINET (UPPER) BLOCK



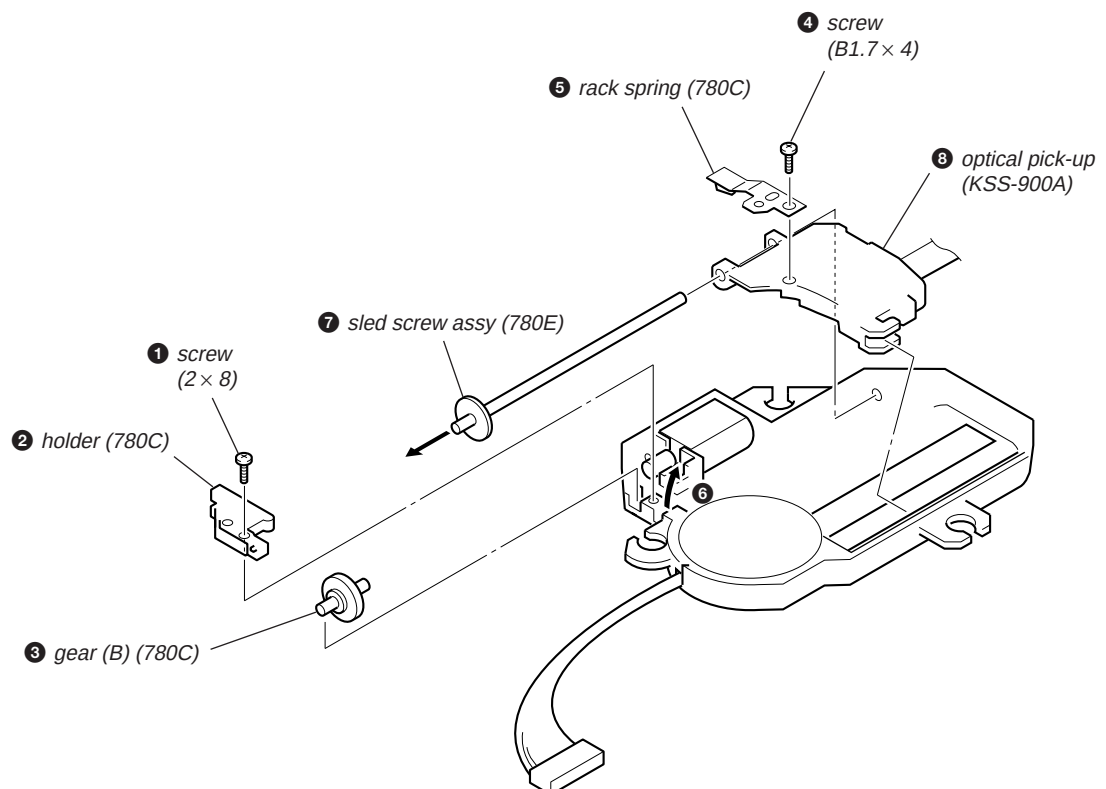
3-4. CD BOARD



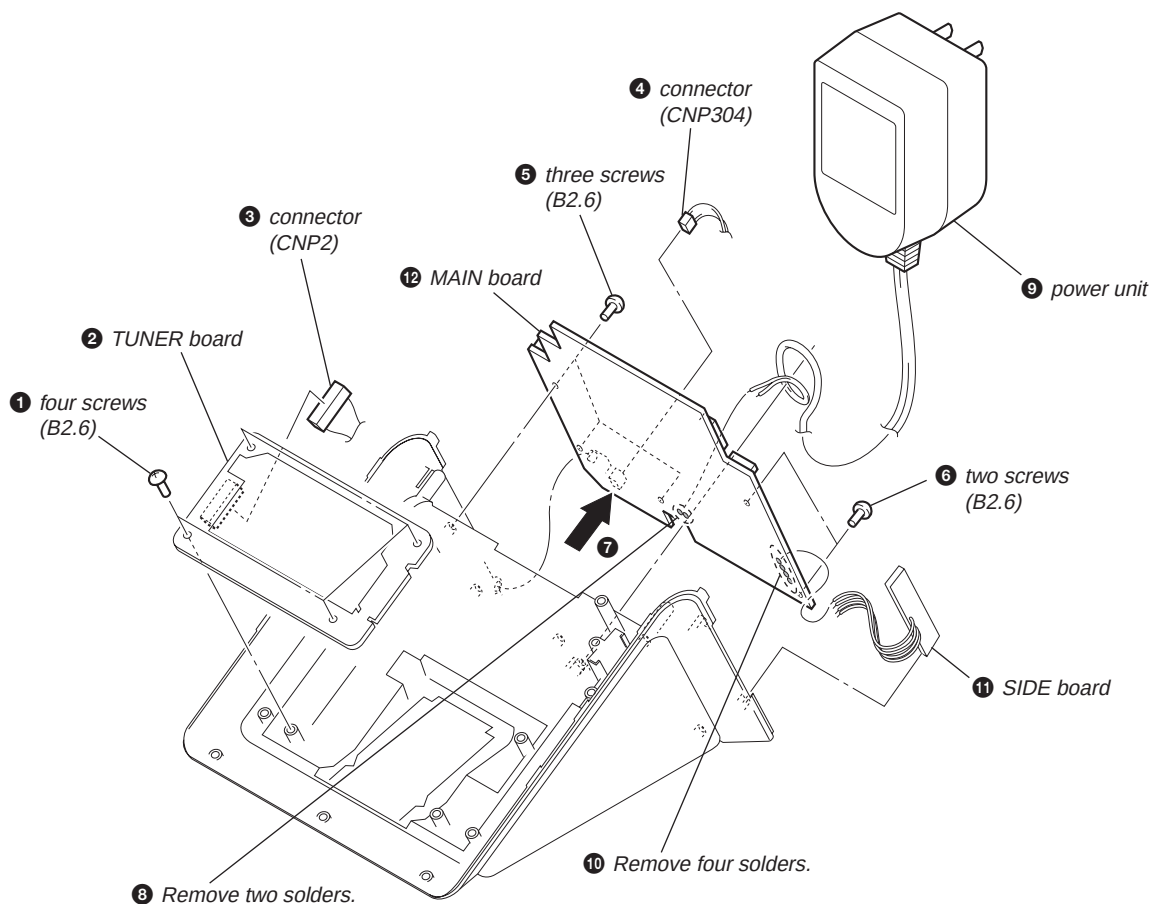
3-5. OPTICAL PICK-UP BLOCK (KSM-900AAA)



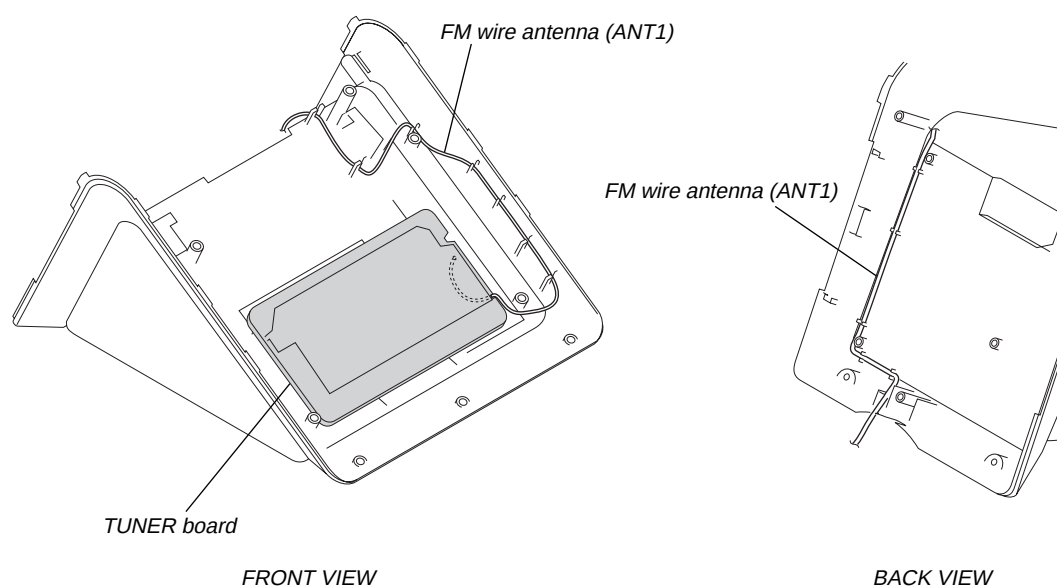
3-6. OPTICAL PICK-UP (KSS-900A)



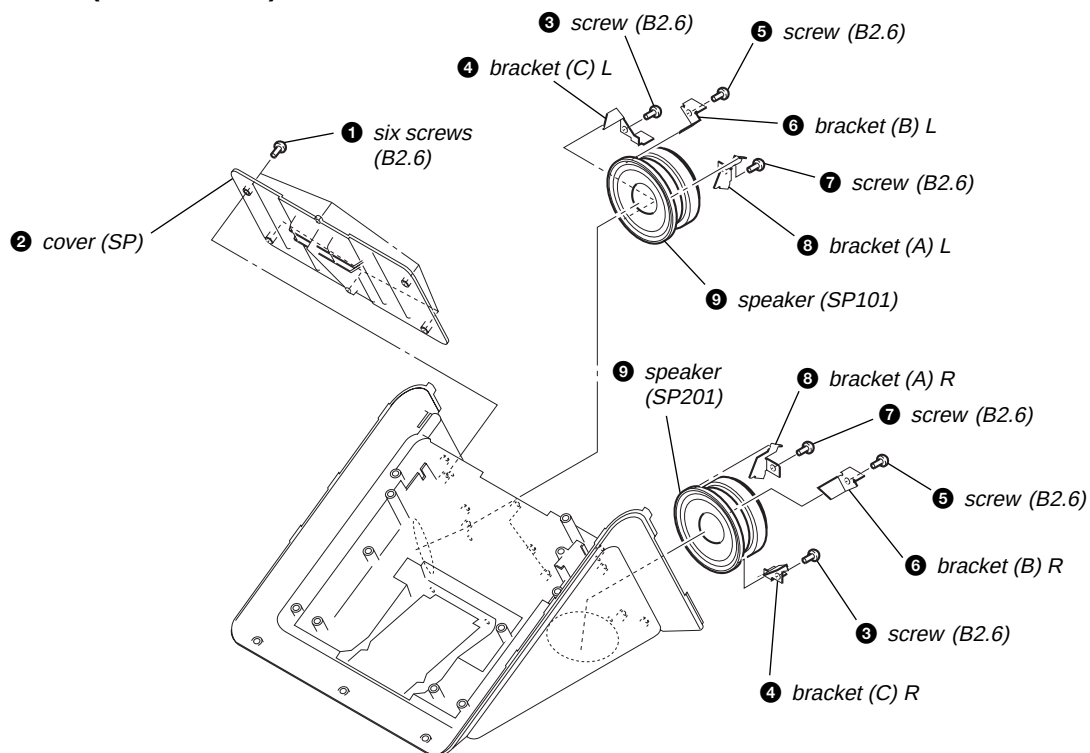
3-7. MAIN BOARD



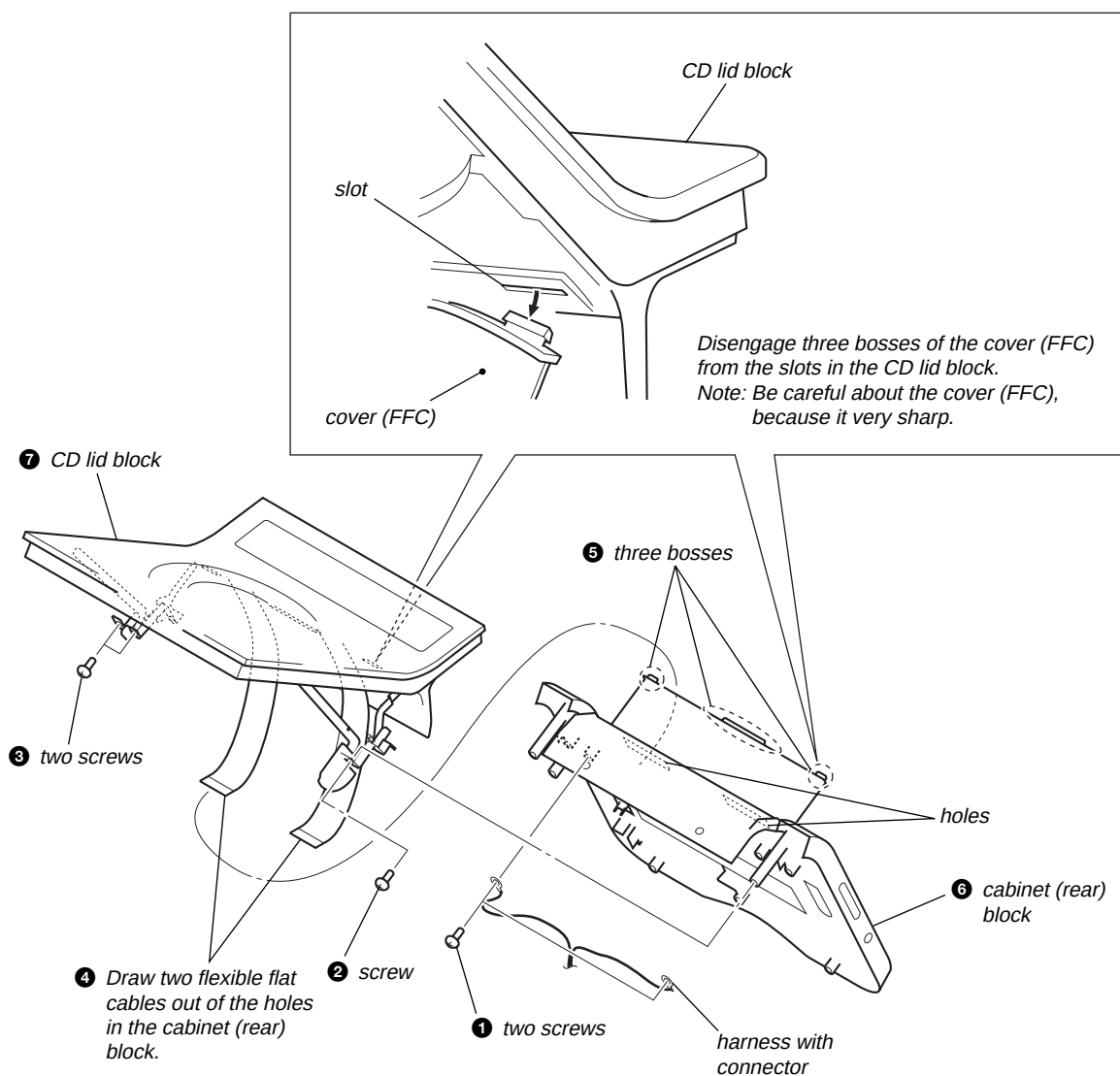
ANTENNA LOCATION



3-8. SPEAKER (SP101/SP201)



3-9. CD LID BLOCK



LCD, LED AND KEY TEST MODE

Procedure:

- 1. Turn the power on while pressing simultaneously three buttons of [RADIO ON/BAND], [CLOCK], and [MODE].
- 2. The microcomputer version will be displayed on the LCD.
- 3. Press the [SNOOZE•SLEEP OFF] button. (The LCD display will become as follows)

LCD display



- 4. BEEP (A) will be output and the display corresponding to a button is turned off, if a button on the set is pressed. Also, BEEP (A) is output when the button is released.

Button Corresponding Table

Button	Segment
CLOCK	AM, PM, : (colon),
ALARM A	ALARM A, AM (ALARM A), PM (ALARM A), 1 (ALARM A), 2 (ALARM A), 7 segment 1/2/3, ALARM A LED
ALARM B	ALARM B, AM (ALARM B), PM (ALARM B), 1 (ALARM B), 2 (ALARM B), 7 segment 7/8/9, ALARM B LED
VOL +	— VOL —
VOL –	4e, 4f, 5a, 5d, 5e, 6b, 6e
SLEEP	SLEEP
NAP	NAP
1	1b, 1c
2	2a, 2b, 2d, 2e, 2g
3	4a, 4b, 4c, 4d, 4g
4	5b, 5c, 5f, 5g
5	6a, 6c, 6d, 6f, 6g
TUNE/TIME SET – ◀◀	7 segment 11
TUNE/TIME SET + ▶▶	7 segment 10
RADIO ON, BAND	RADIO, WEATHER, TV, FM1, FM2, LW, MW
OFF ■	MHz, kHz
CD ▶▶	CD, ▶, ◀ TRACK ◀, WAKE UP
MODE	REP, 1, ALL, SHUFFLE, FM-MONO

- 5. After all buttons on the set were pressed, press the [SNOOZE•SLEEP OFF] button, and BEEP (B) will be output and the test mode will be terminated.
- 6. If there is even one button that was not accepted, the set will not be released from test mode even though the [SNOOZE•SLEEP OFF] button is pressed.
- 7. The set will return to normal state when the LCD, LED AND KEY TEST MODE is terminated.

CD TEST MODE

Procedure:

1. Connect 22 k Ω and 100 k Ω resistors in parallel to the end of S618 on the LCD board, and short another end of resistors to the GND, and the CD TEST MODE will be activated.
2. Insert a CD disc.
3. Turn the power on. Press the **[CD ►||]** button.
4. The following shows the state transition table for each button operation in respective sub modes of CD TEST MODE.

State Transition Table

If each button is pressed in respective sub modes, the mode will transit to the sub modes listed in table.

MODE		Explanation	LCD	Button								
MAIN	SUB			OFF ■	CD ▢▢	+	-	RADIO ON BAND	SLEEP	+	-	Processing end
				Long pressed								
INT		State when TEST MODE is activated.	0	STOP0	FOCUS0							
STOP	STOP0	State when a button is pressed once from initial state.	1		FOCUS0	SLDF	SLDR	EF ADJ1:11	Normal			
	STOP0	Automatically adjusted value is held.	2	STOP0	FOCUS0	SLDF	SLDR		Normal			
FOCUS	FOCUS0	AUTO FOCUS transfer mode	3	STOP								FOCUS
	FOCUS	FOCUS SERVO ON state,(CLV-S, TRK/SLED, SERVO OFF) It will be referred to as LPC ON if FOCUS carries out on.	4	STOP	F.LPC OFF	FCSF	FCSR	EF ADJ2:11	AUTO			
	F.LPC OFF	LPC OFF in FOCUS state.	5	STOP	ALSV	FCSF	FCSR	SCURVE				
ALL SERVO	ALSV	State where all servo systems are turned on.	7	STOP	LPC OFF	FCSF	FCSR	EF ADJ3:11	AUTO			
	ALPC OFF	State where all servo systems are turned on.(LPC:OFF)	8	STOP	TGUP	FCSF	FCSR					
	TGUP	State with TRK GAIN UP in all servo systems are turned on.(LPC:ON)	9	STOP	ALSV	FCSF	FCSR					
	AUTO	Mode in which automatic adjustment is made at once.	b									
SLED	SLDF	SLED is fed outward in STOP state.	c	STOP	STOP	STOP		STOP	STOP		SLDF	
	SLDR	SLED is fed inward in STOP state.	d	STOP	STOP		STOP	STOP	STOP	SLDR		
F.SLED	FCSF	SLED is fed outward in FOCUS state.	E	FOCUS	FOCUS	FOCUS		FOCUS	FOCUS		FCSF	
	FCSR	SLED is fed inward in FOCUS state.	F	FOCUS	FOCUS		FOCUS	FOCUS	FOCUS	FCDR		

Mode transits to sub modes listed in table, if a button is pressed in respective sub modes.

5. Turn the power off to release the CD TEST MODE.

CD-JUMP TEST MODE

Procedure:

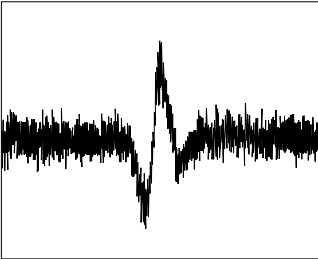
- 1. Connect the oscilloscope to TP (TE) and TP (VREF) on the CD board.
Connecting Location: CD board (See page 15)
- 2. Connect 22 kΩ and 100 kΩ resistors in parallel to the end of S618 on the LCD board, and further connect 47 kΩ and 47 kΩ resistors respectively and short them to the GND, and the CD-JUMP TEST MODE will be activated.
- 3. Insert a CD disc.
- 4. Turn the power on. Press the **CD ►||** button.
- 5. If the **MODE** button is pressed, you can jump in fast feed or fast reverse direction with the **+ ►►** or **- ◄◄** button by the jump amount set in Table 1.

Table 1

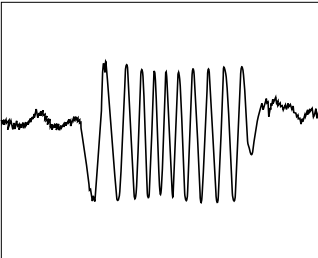
LCD	Button	
	+ ►►	- ◄◄
REP ALL	TRACK + 1	TRACK - 1
SHUFFLE	TRACK + 10	TRACK - 10
SHUFFLE, REP	TRACK + 100	TRACK - 100

Waveform of TP (TE) and TP (VREF) output in each mode is as follows.

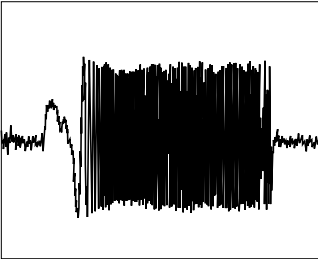
REP ALL mode
500 μs/div



SHUFFLE mode
1 ms/div



SHUFFLE REP mode
10 ms/div

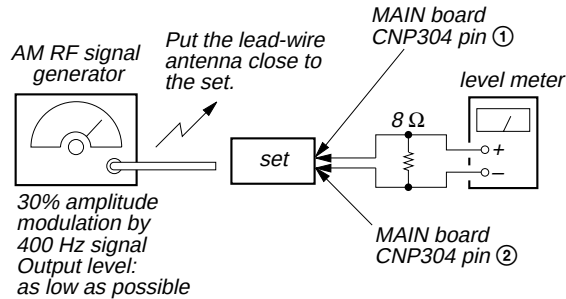


- 6. Turn the power off to release the CD-JUMP TEST MODE.

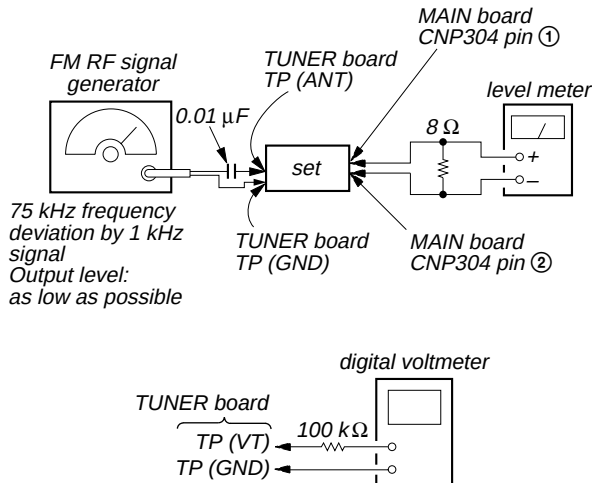
SECTION 5
ELECTRICAL ADJUSTMENTS

TUNER SECTION	0 dB=1 μ V
---------------	----------------

[AM]
Setting:
Function: RADIO
Band: AM



[FM/TV/WEATHER]
Setting:
Function: RADIO
Band: FM/TV/WEATHER



- Repeat the procedures in each adjustment several times, and the tracking adjustments should be finally done by the trimmer capacitors.
- Remove FM/TV/WEATHER antenna in FM/TV/WEATHER adjustment.

AM IF ADJUSTMENT	
Adjust for a maximum reading on level meter	
T1	450 kHz

AM VCO VOLTAGE ADJUSTMENT		
Adjustment Part	Frequency Display	Reading on Digital Voltmeter
L6	530 kHz	1.0 $\pm$ 0.1 V
Confirmation	1,710 kHz	5.3 $\pm$ 0.7 V

AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter	
L5	620 kHz
CT5	1,400 kHz

FM/TV/WEATHER IF ADJUSTMENT	
Adjust for a minimum reading on level meter	
T2	10.75 MHz

FM/TV (2 – 6 CH) VCO VOLTAGE ADJUSTMENT		
Adjustment Part	Frequency Display	Reading on Digital Voltmeter
L4	TV 2 ch	0.5 $\pm$ 0.15 V
CT3	108 MHz	4.5 $\pm$ 0.15 V

FM/TV (2 – 6 CH) TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter	
L2	TV 2 ch
Confirmation	108 MHz

TV (7 – 13 CH)/WEATHER VCO VOLTAGE ADJUSTMENT		
Adjustment Part	Frequency Display	Reading on Digital Voltmeter
L3	WEATHER 2 ch	1.2 $\pm$ 0.15 V
CT4	TV 13 ch	4.2 $\pm$ 0.15 V

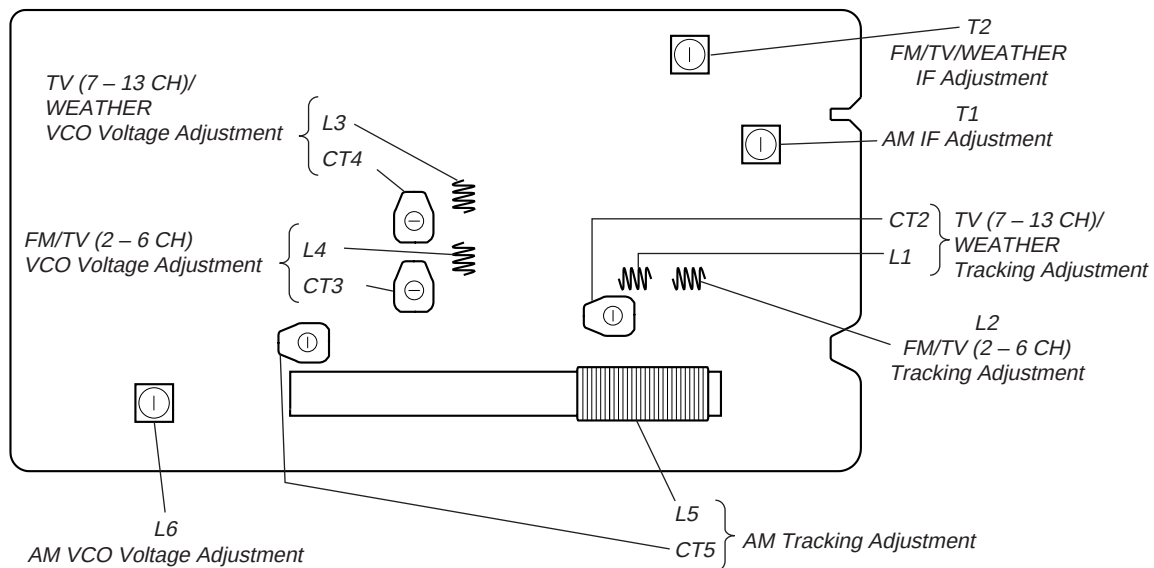
TV (7 – 13 CH)/WEATHER TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter	
L1	WEATHER 2 ch
CT2	TV 13 ch

Adjustment and Connecting Location:
TUNER and MAIN board (See page 14)

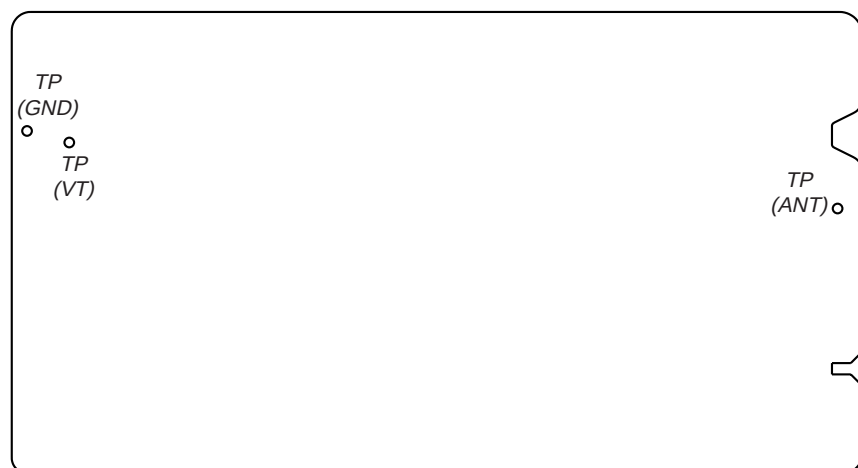
ICF-CD855V

Adjustment and Connecting Location:

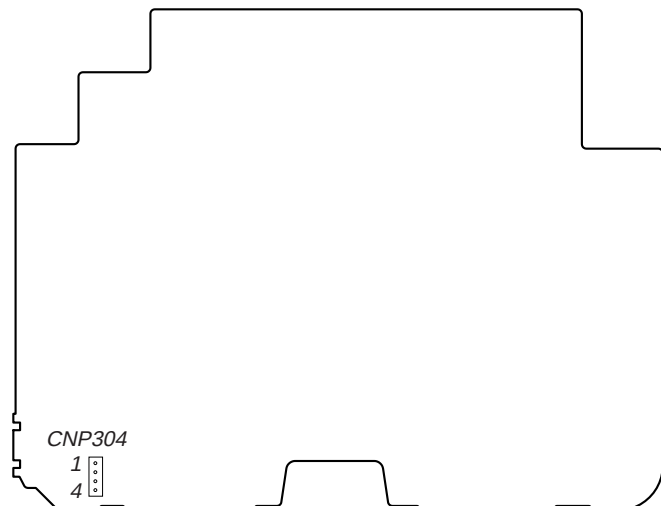
- TUNER BOARD (Component Side) -



- TUNER BOARD (Conductor Side) -



- MAIN BOARD (Conductor Side) -



CD SECTION

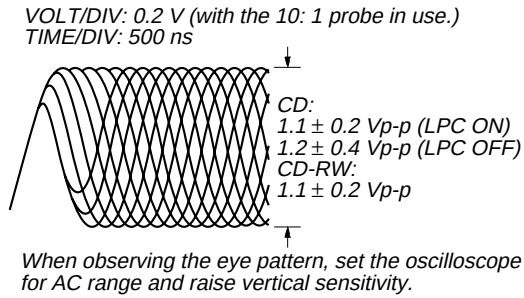
Perform all CD section check in the test mode.

FOCUS BIAS CHECK

Procedure:

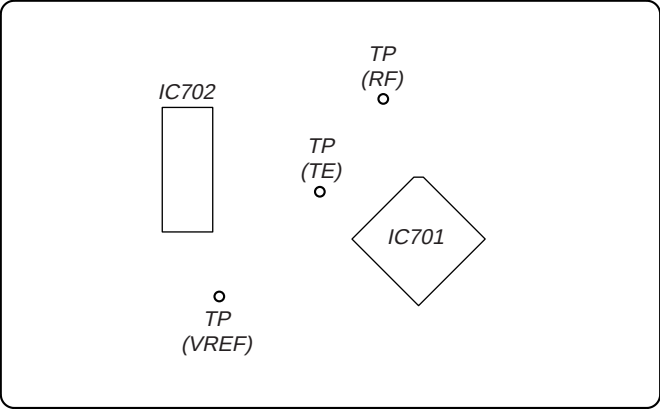
1. Connect the oscilloscope to TP (RF) and TP (VREF) on the CD board.
2. Insert the test disc (YEDS-18). (Part No. 3-702-101-01) (CD)
3. While playing the CD, set the CD test mode (Refer to CD TEST MODE (See page 11)) (Automatic adjustment value is held at this time).
4. Press the **CD ▶||** button. (LPC ON) (700 is displayed on the LCD)
5. Confirm that the oscilloscope waveform is as shown in the figure below. (eye pattern)
A good eye pattern means that the diamond shape (◇) in the center of the waveform can be clearly distinguished.
6. Press the **CD ▶||** button. (LPC OFF) (800 is displayed on the LCD)
7. Perform confirmation in the same manner as step 5.
8. Press the **OFF ■** button.
9. Press the **SLEEP** button in the state where 200 or 100 are displayed on the LCD, and release the CD test mode.
10. Change the test disc (TCD-W082L). (Part No. J-2502-063-2) (CD-RW)
11. Perform confirmation in the same manner as step 2 to 7.

• RF signal reference waveform (eye pattern)



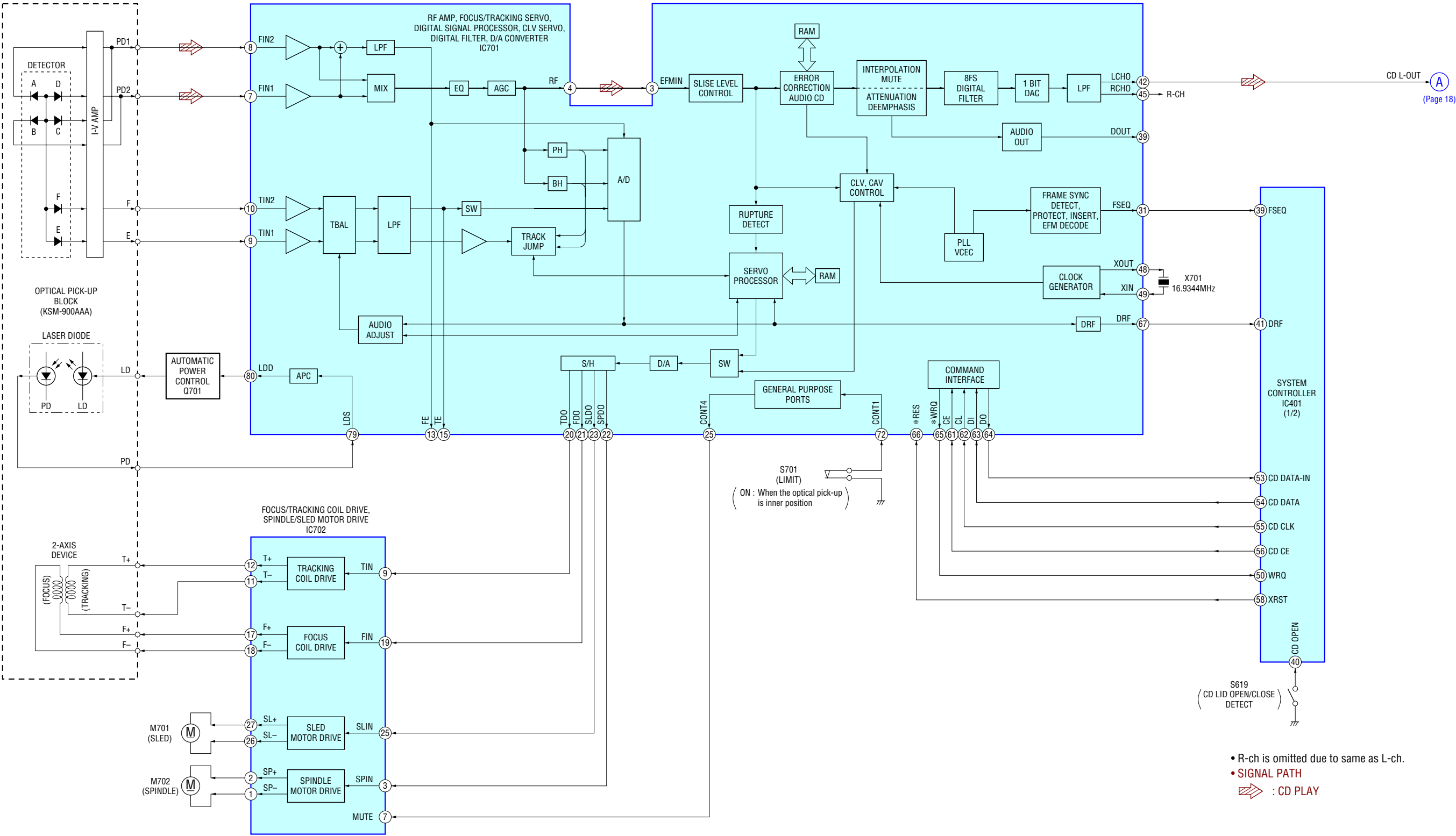
Connecting Location:

– CD BOARD (Conductor Side) –

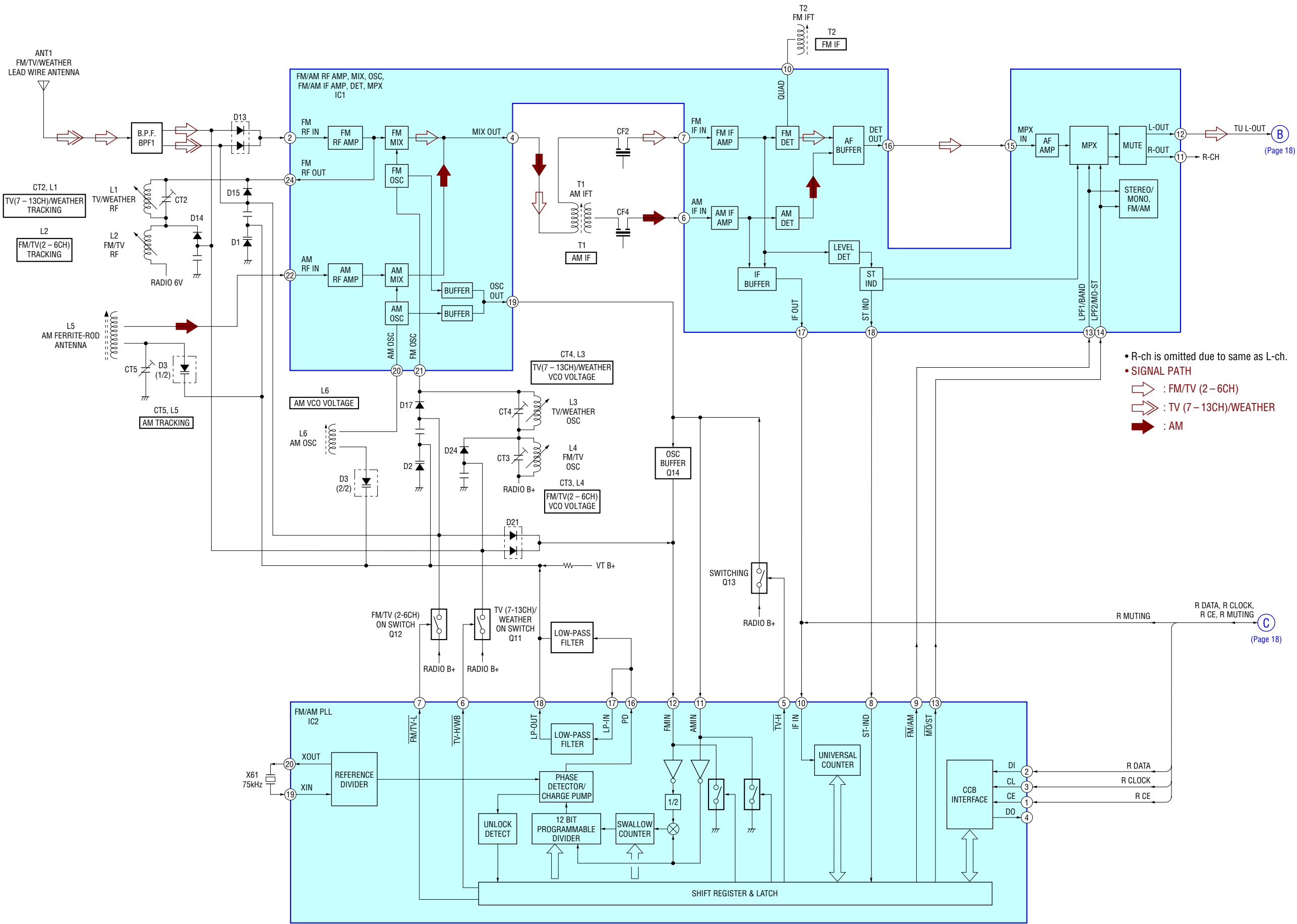


SECTION 6
DIAGRAMS

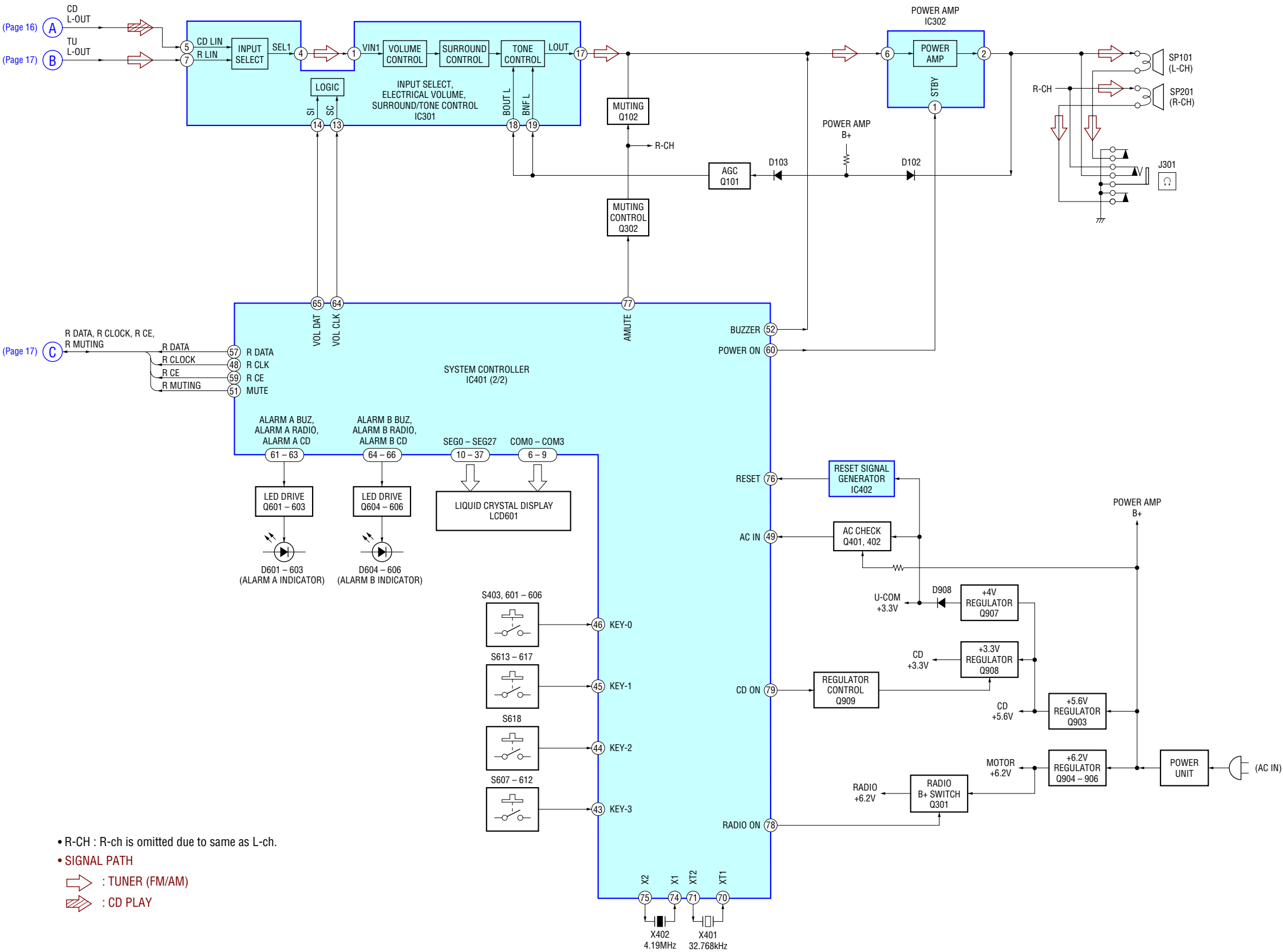
6-1. BLOCK DIAGRAM – CD Section –



6-2. BLOCK DIAGRAM – TUNER Section –



6-3. BLOCK DIAGRAM – MAIN Section –



6-4. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Boards:

- — : parts extracted from the component side.
- : parts extracted from the conductor side.
- : indicates side identified with part number.
- △ : internal component.
- : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:

Pattern face side:	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side:	Parts on the parts face side seen from the parts face are indicated.

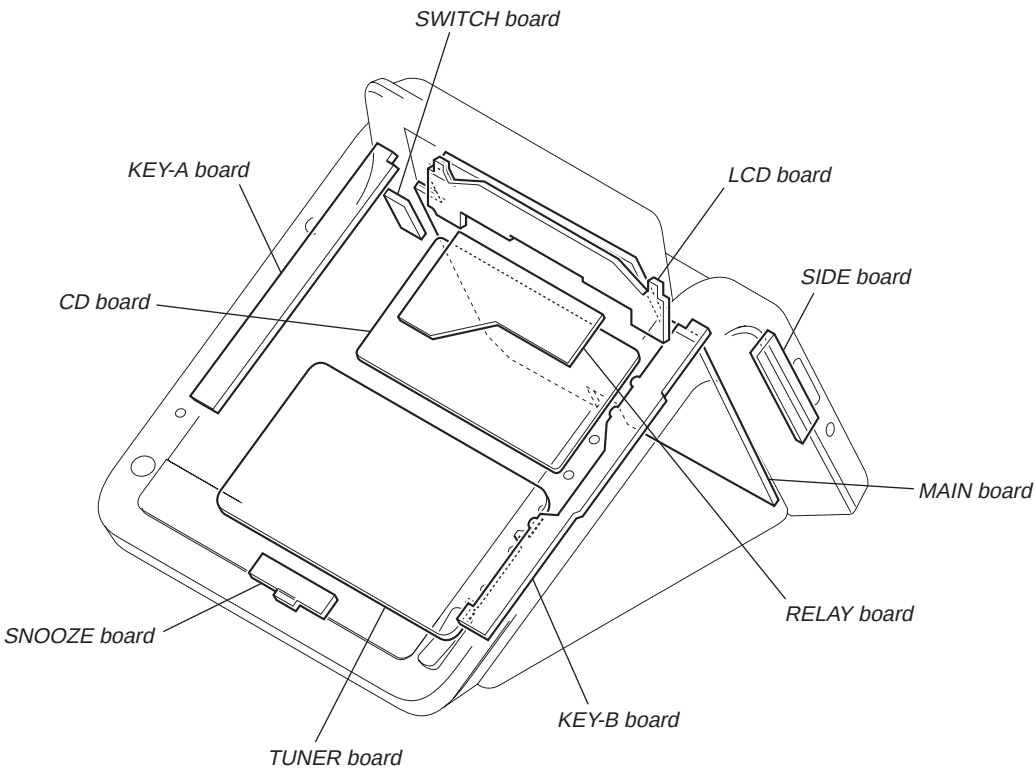
Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF : $\mu\mu\text{F}$. 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
- △ : internal component.
- : panel designation.

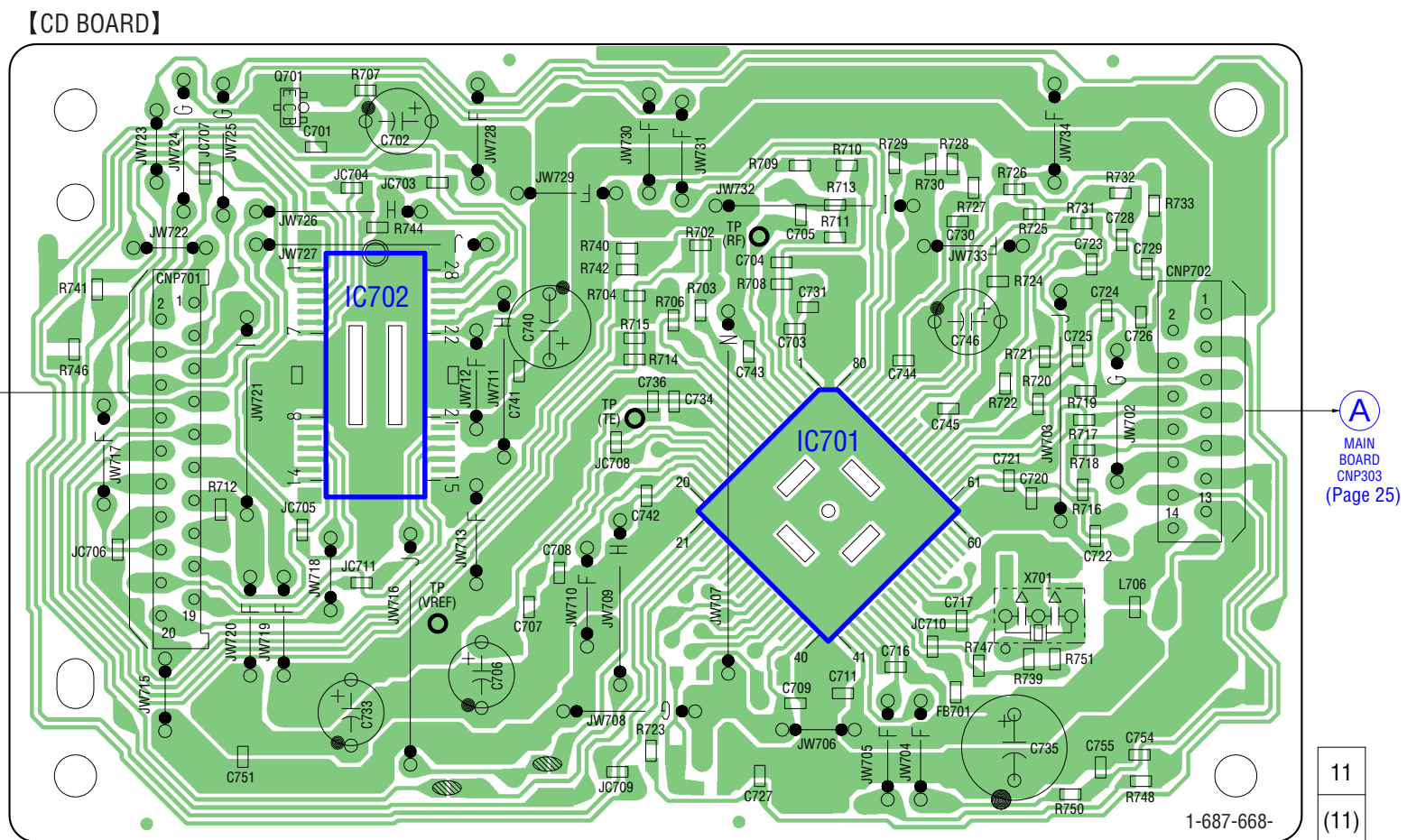
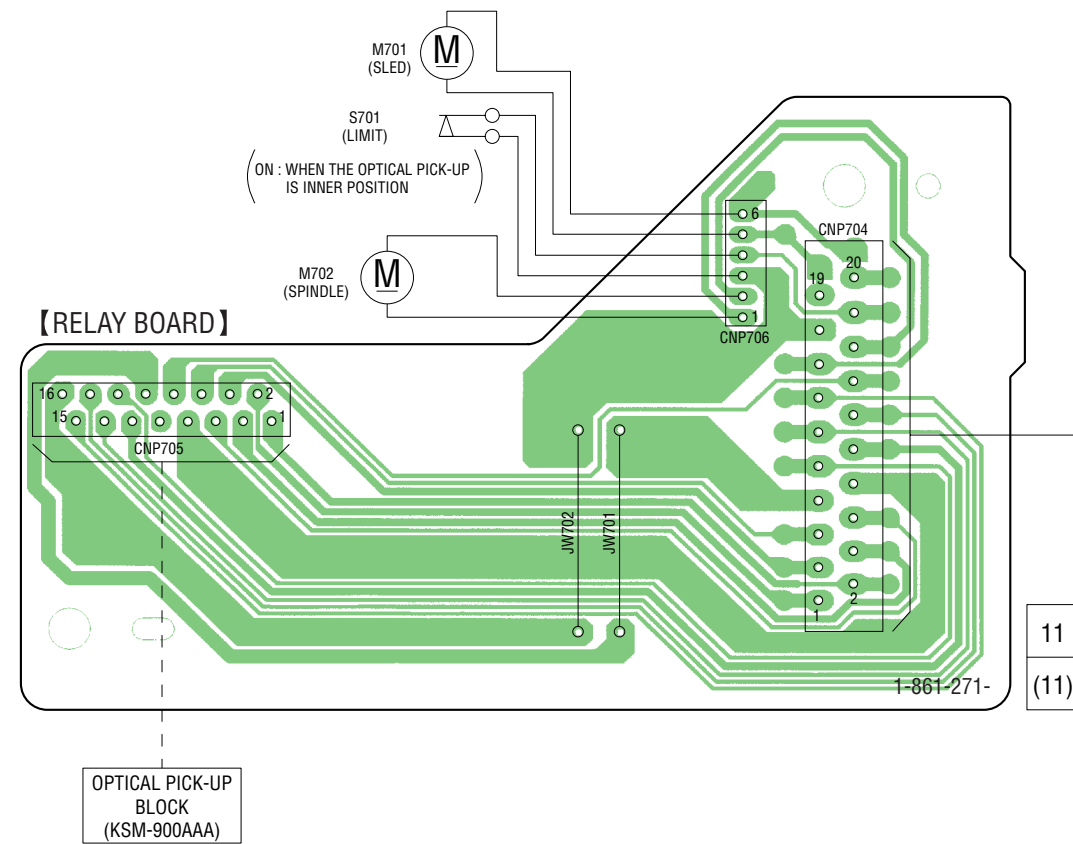
Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

- : B+ Line.
- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
- CD Board —
 - [] : CD PLAY
- TUNER Board —
 - no mark : FM/TV (2 – 6 ch)
 - () : AM
 - [] : TV (7 – 13 ch)/WEATHER (1 – 7 ch)
- Other Boards —
 - no mark : FM
 - () : CD PLAY
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 - ⇒ : FM/TV (2 – 6 ch)
 - ⇒ : TV (7 – 13 ch)/WEATHER (1 – 7 ch)
 - ⇒ : AM
 - ⇒ : CD PLAY

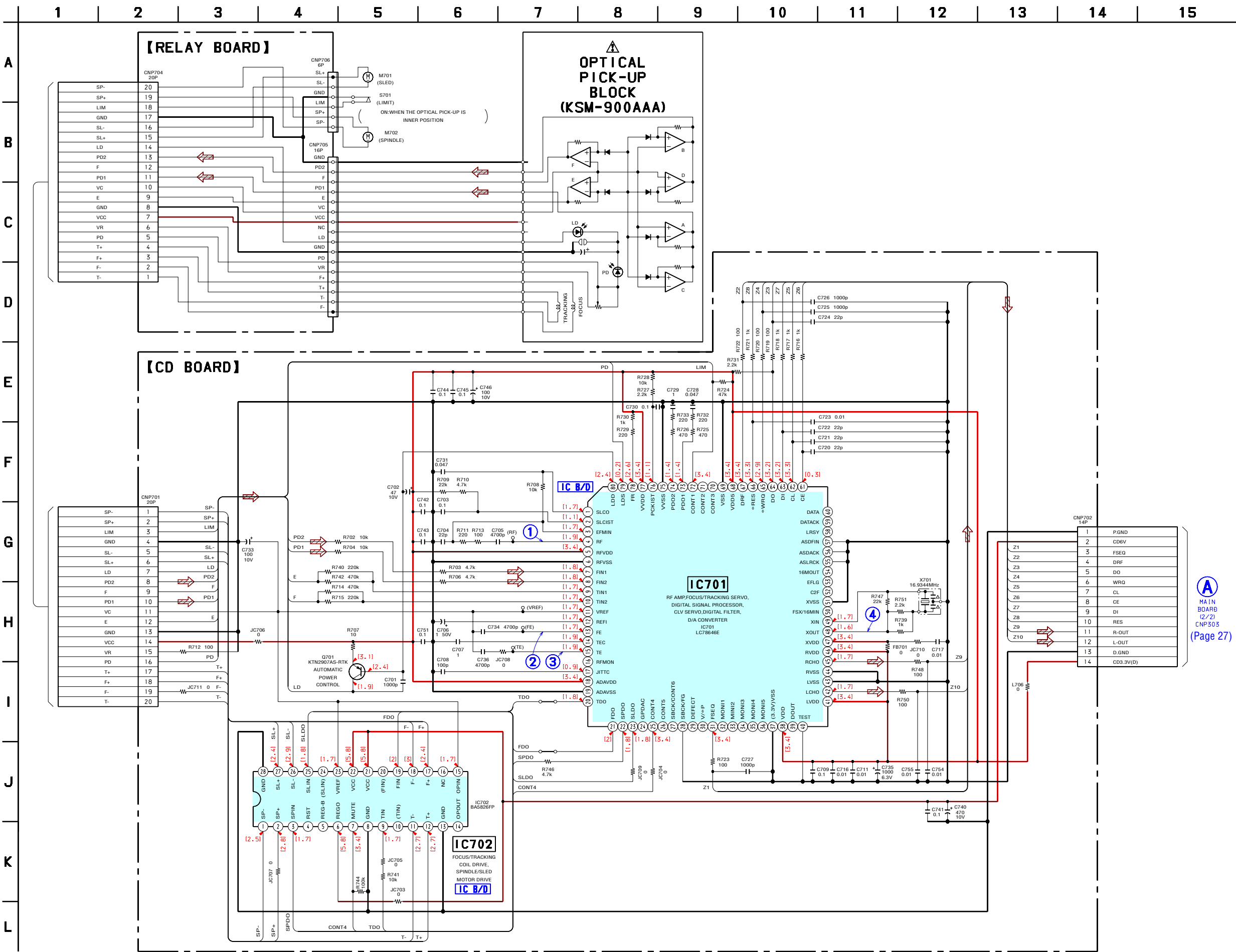
• Circuit Boards Location



6-5. PRINTED WIRING BOARDS – CD Section – • See page 19 for Circuit Boards Location. :Uses unleaded solder.



6-6. SCHEMATIC DIAGRAM – CD Section – • See page 28 for Waveforms. • See page 28 for IC Block Diagrams.



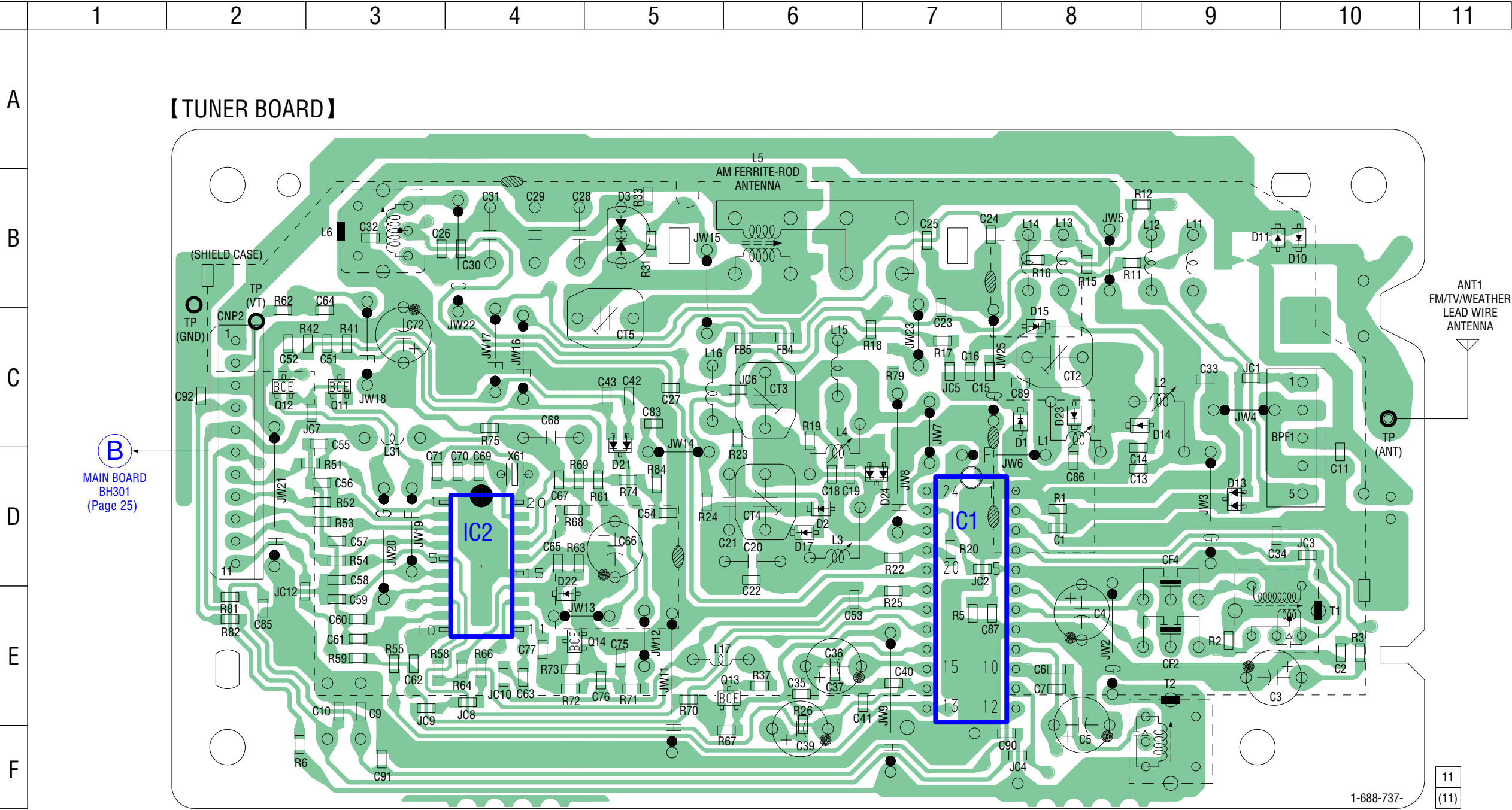
A
MAIN
BOARD
(2/2)
CNP503
(Page 27)

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

6-7. PRINTED WIRING BOARD – TUNER Board – • See page 19 for Circuit Boards Location. :Uses unleaded solder.

• Semiconductor Location

Ref. No.	Location
D1	C-8
D2	D-6
D3	B-5
D10	B-10
D11	B-10
D13	D-9
D14	C-9
D15	C-8
D17	D-6
D21	C-5
D22	E-4
D23	C-8
D24	D-7
IC1	E-7
IC2	D-4
Q11	C-3
Q12	C-2
Q13	E-6
Q14	E-4



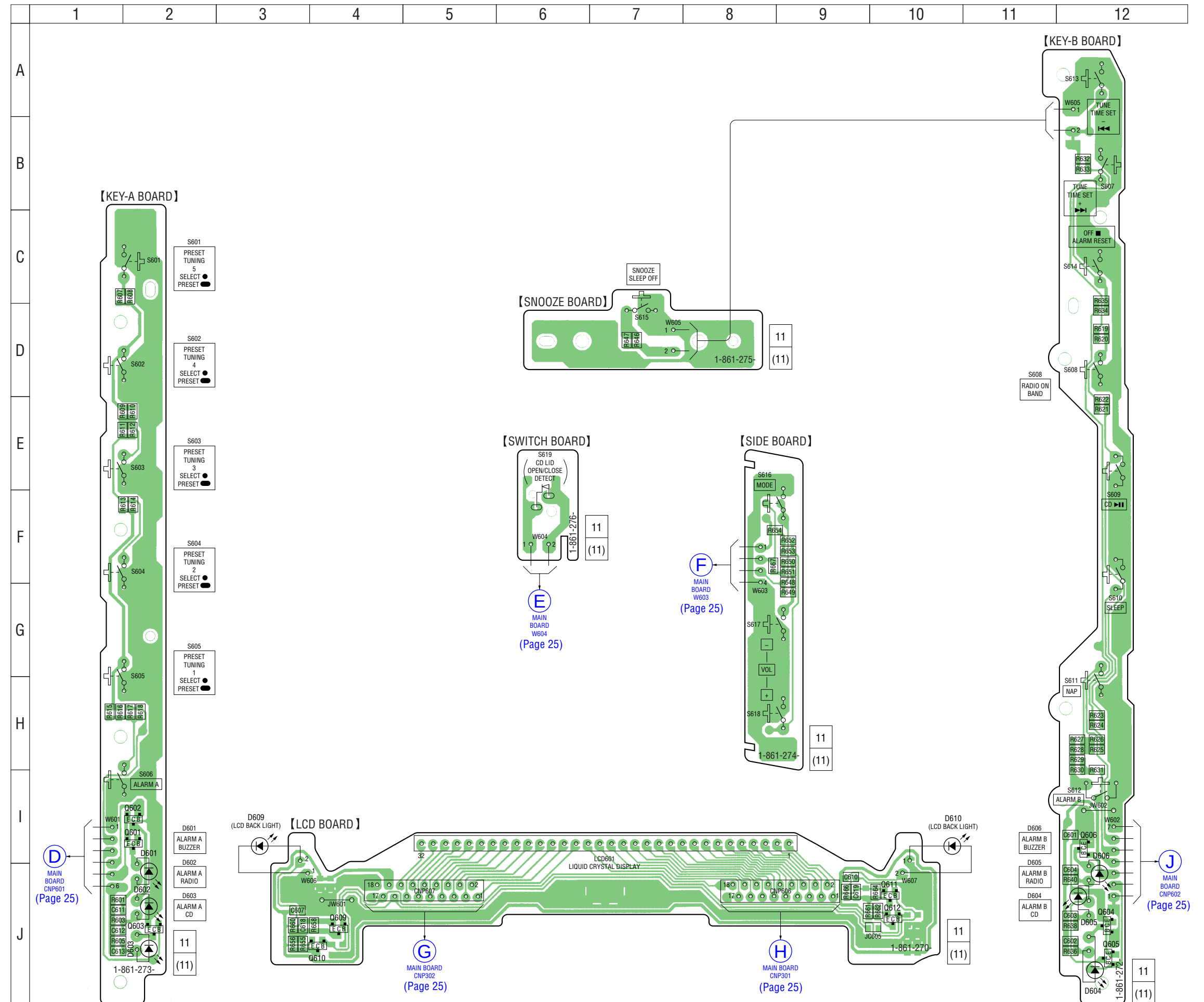
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----



6-9. PRINTED WIRING BOARDS – PANEL Section – • See page 19 for Circuit Boards Location. :Uses unleaded solder.

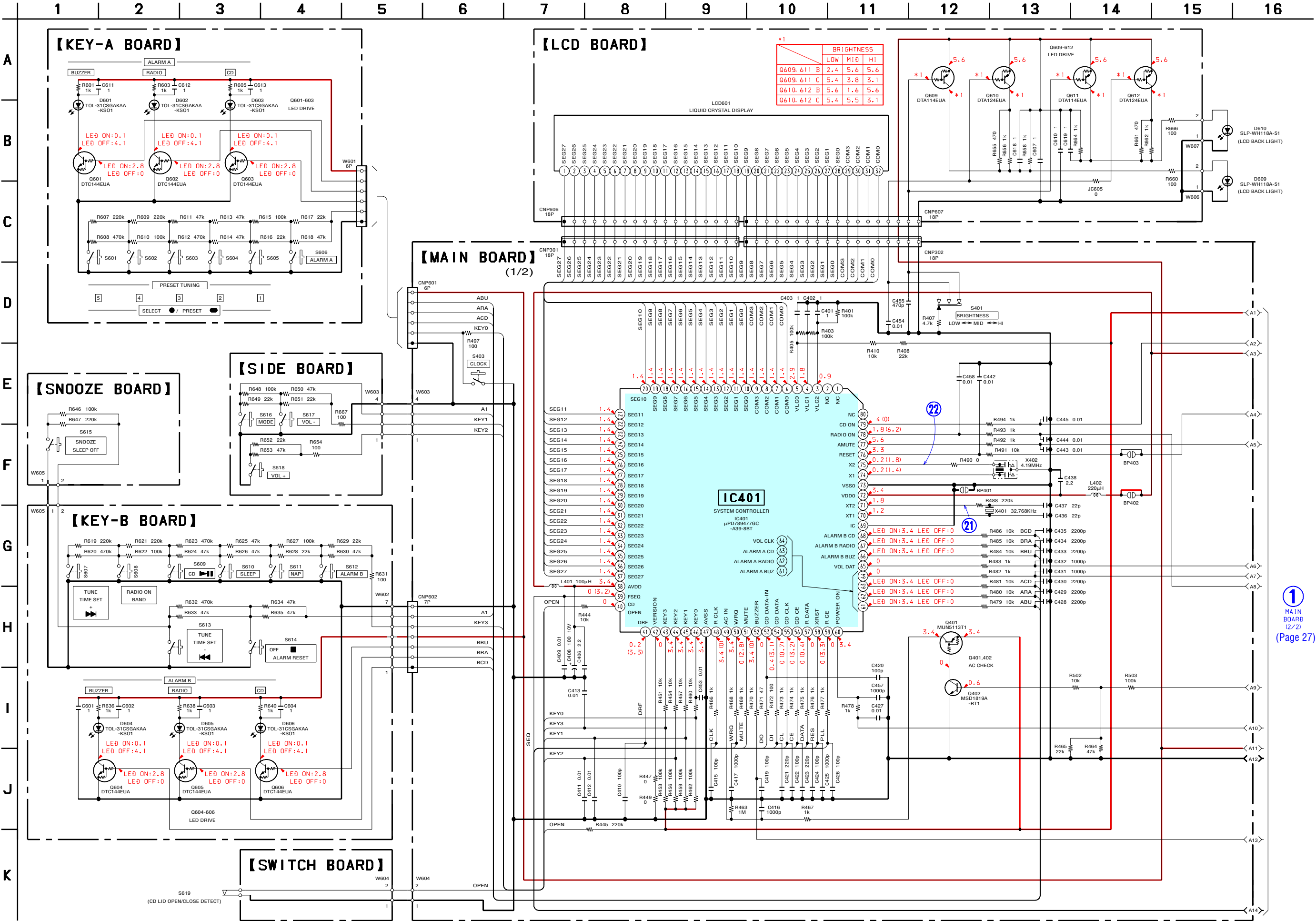
- **Semiconductor Location**

Ref. No.	Location
D601	J-2
D602	J-2
D603	J-2
D604	J-12
D605	J-12
D606	J-12
D609	I-3
D610	I-10
Q601	I-2
Q602	I-2
Q603	J-2
Q604	J-12
Q605	J-12
Q606	I-12
Q609	J-4
Q610	J-4
Q611	J-10
Q612	J-10

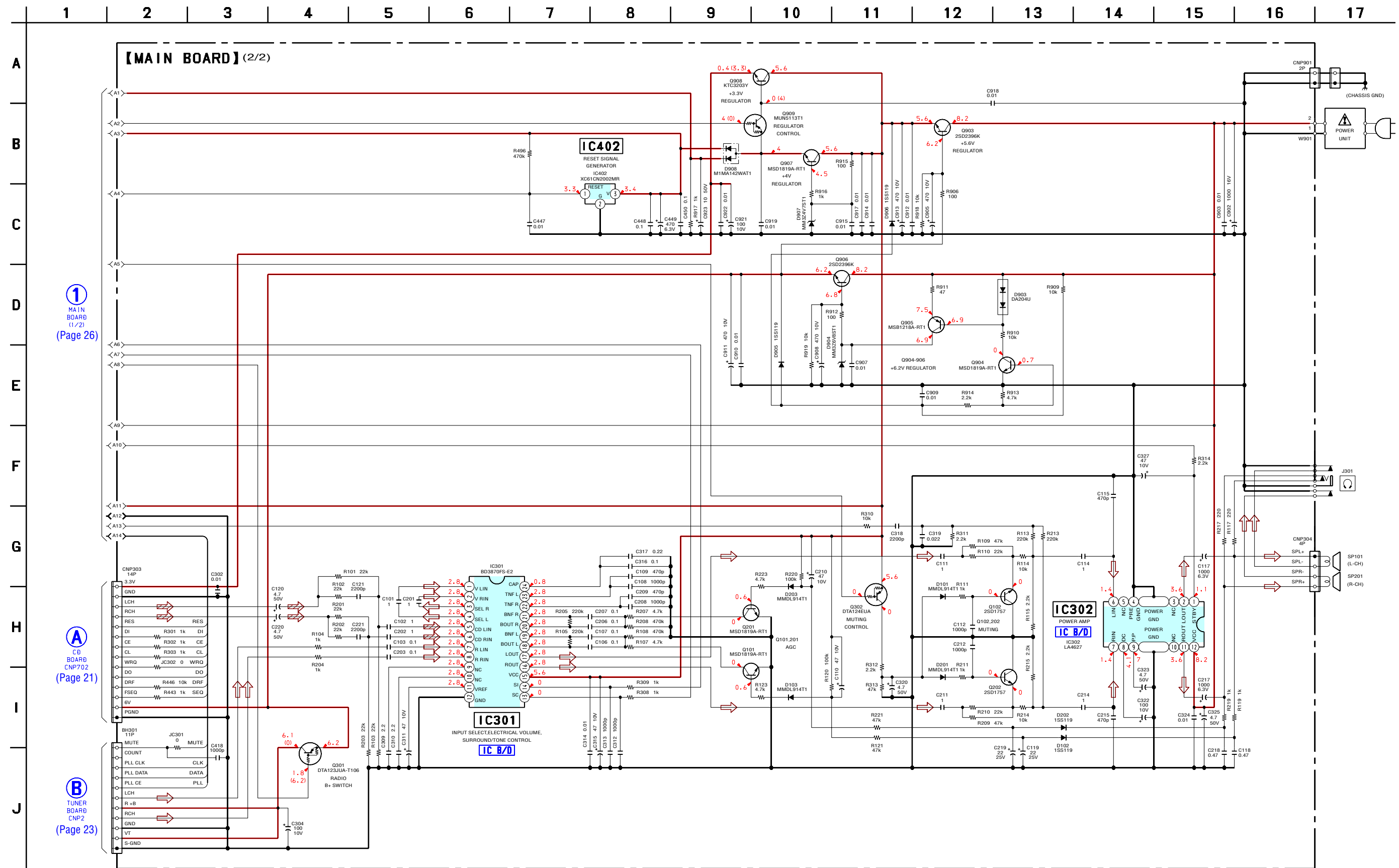


Semiconductor Location	
Ref. No.	Location
D101	F-4
D102	F-2
D103	F-4
D201	G-5
D202	F-2
D203	F-4
D903	G-10
D904	G-10
D905	G-9
D906	G-8
D907	D-8
D908	D-7
IC301	E-3
IC302	G-4
IC401	C-6
IC402	D-4
Q101	F-4
Q102	G-4
Q201	F-4
Q202	G-5
Q301	F-7
Q302	F-5
Q401	D-4
Q402	D-4
Q903	G-7
Q904	G-10
Q905	G-10
Q906	G-9
Q907	E-7
Q908	E-9
Q909	E-8

6-11. SCHEMATIC DIAGRAM – MAIN Section (1/2) – • See page 28 for Waveforms. • See page 32 for IC Pin Function Description.



6-12. SCHEMATIC DIAGRAM – MAIN Section (2/2) – • See page 28 for IC Block Diagrams.

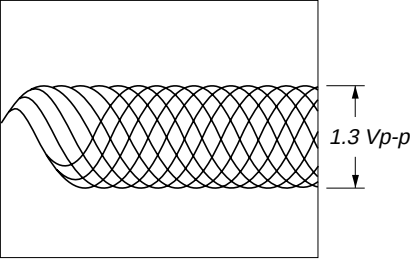


The components identified by mark  or dotted line with mark are critical for safety.
Replace only with part number specified.

ICF-CD855V

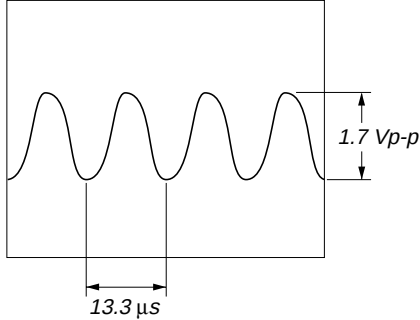
• Waveforms
– CD Board –

① IC701 ④ (RF) (CD play mode)



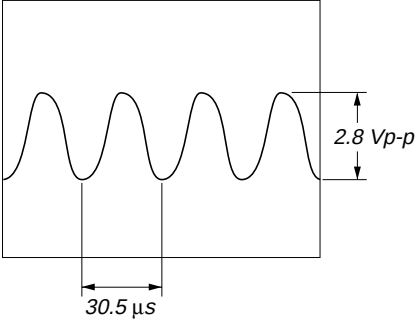
– TUNER Board –

⑪ IC2 ⑳ (XOUT)

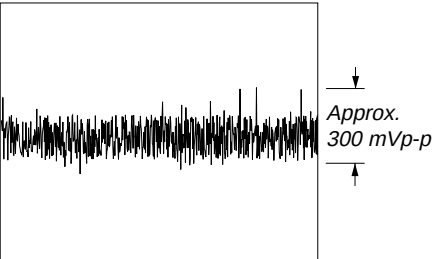


– MAIN Board –

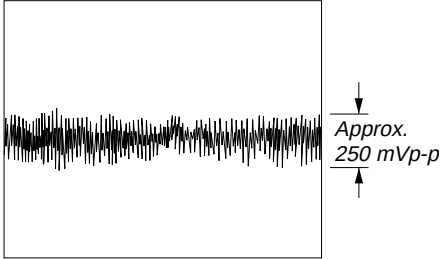
⑳ IC401 ㉑ (XT2)



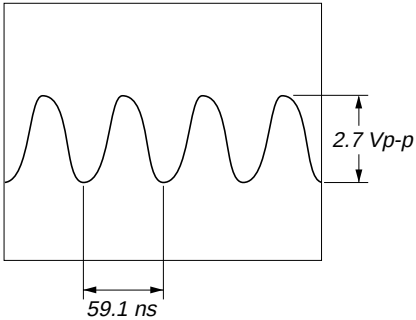
② IC701 ⑬ (FE) (CD play mode)



③ IC701 ⑮ (TE) (CD play mode)

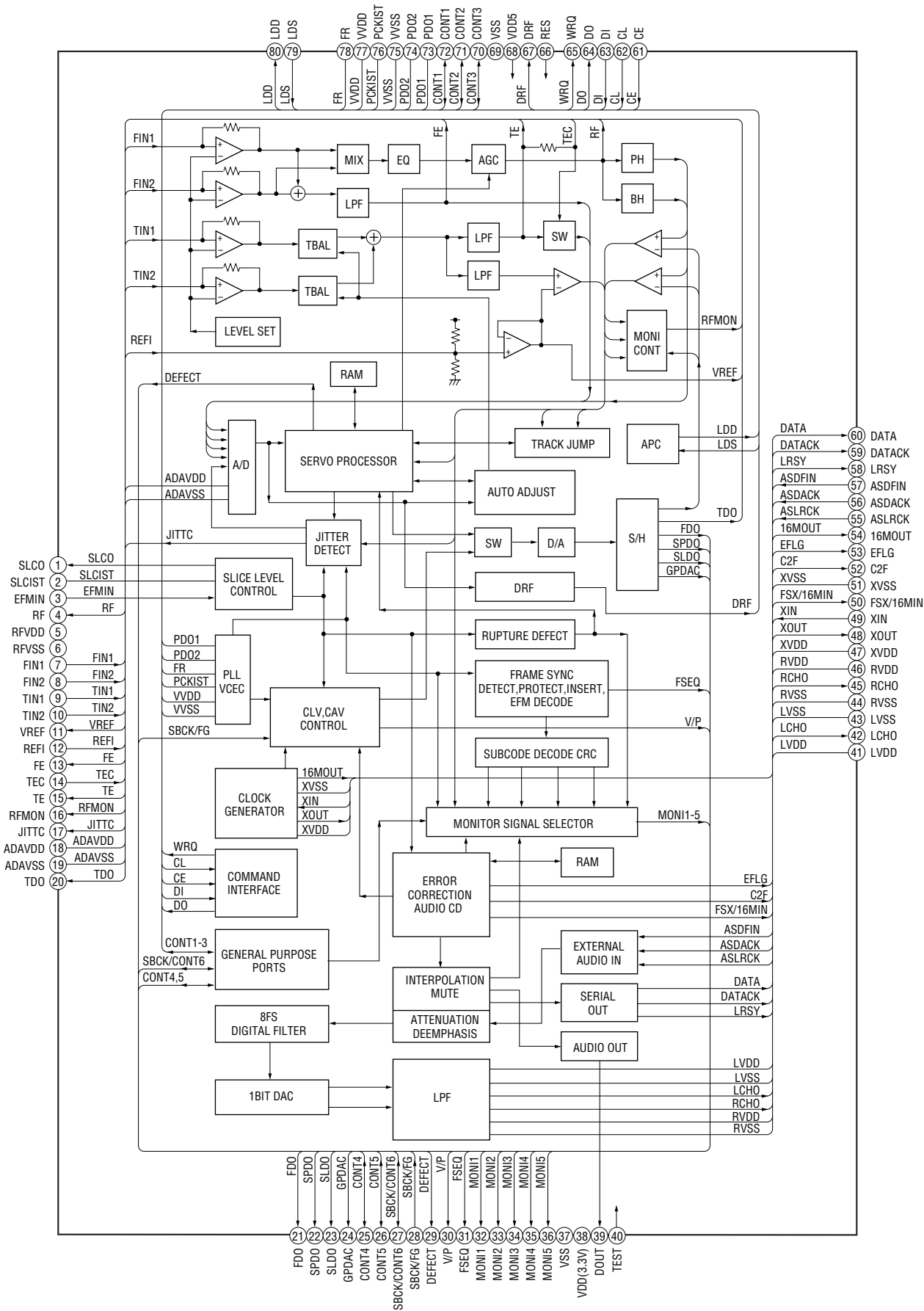


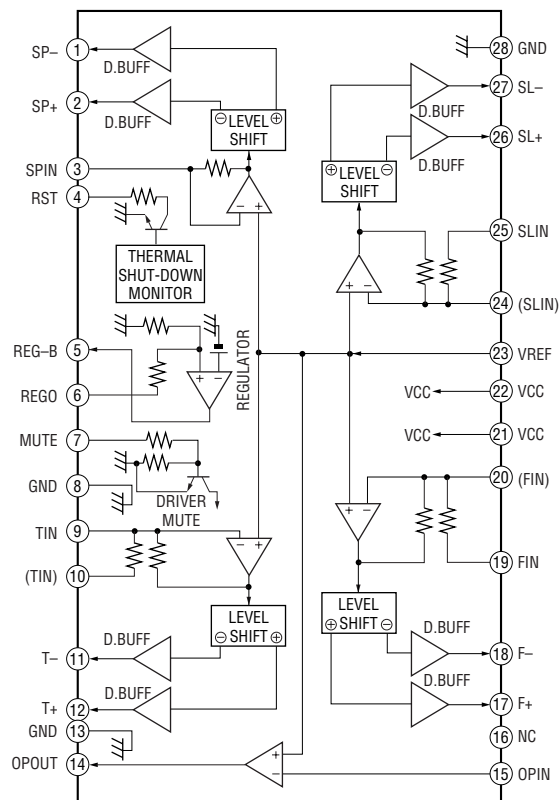
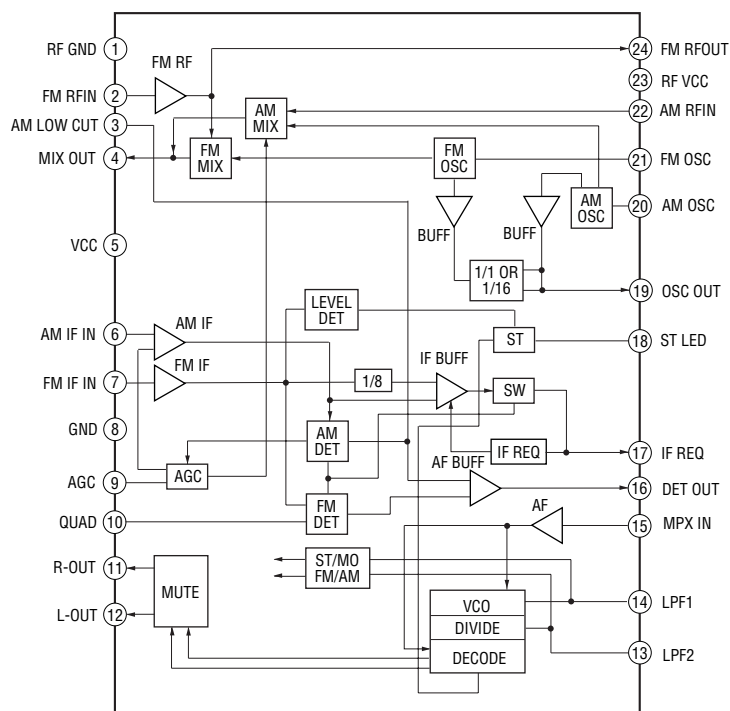
④ IC701 ㉔ (XOUT) (CD play mode)



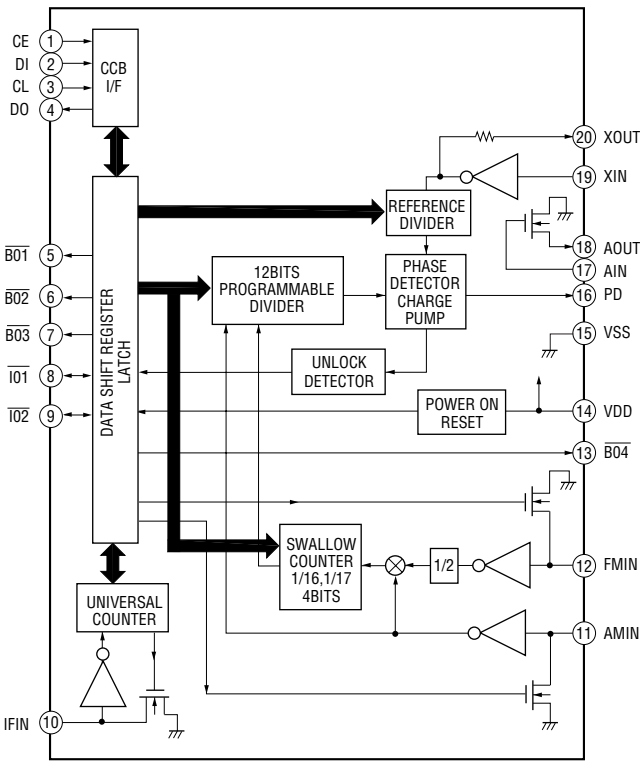
• IC Block Diagrams
– CD Board –

IC701 LC78646E-E



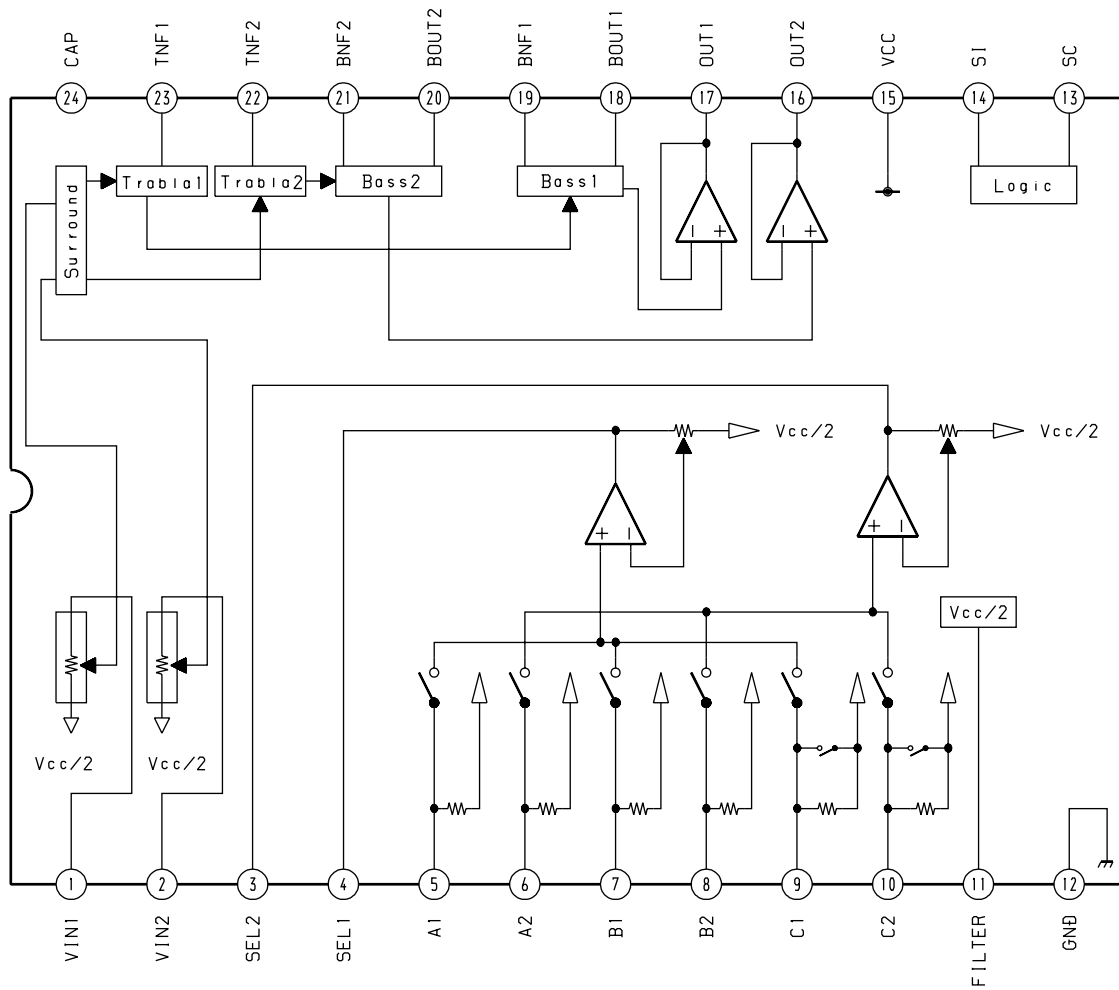
IC702 BA5826FP-E2**- TUNER Board -****IC1 TA2149BN**

IC2 LC72137M-TLM-E

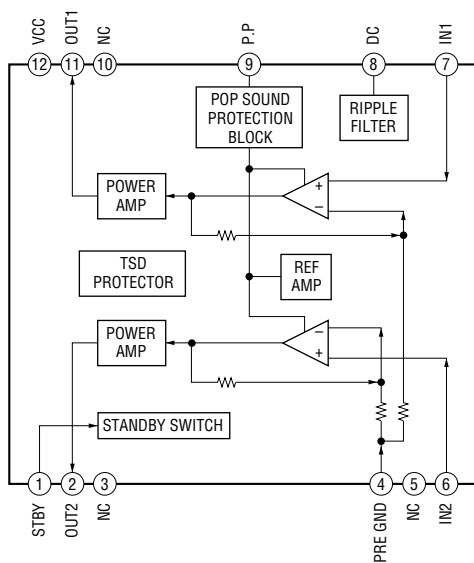


- MAIN Board -

IC301 BD3870FS-E2



IC302 LA4627

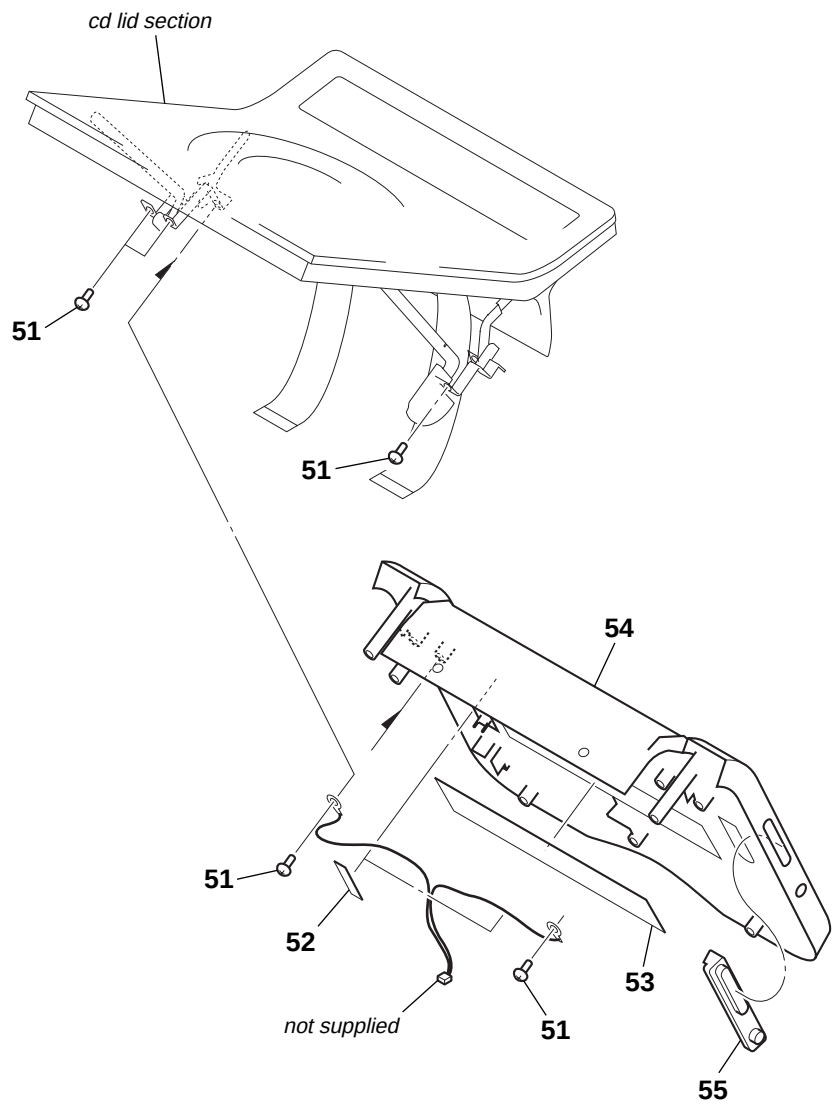


• IC Pin Function Description

MAIN BOARD IC401 μ PD789477GC-A39-8BT (SYSTEM CONTROLLER)

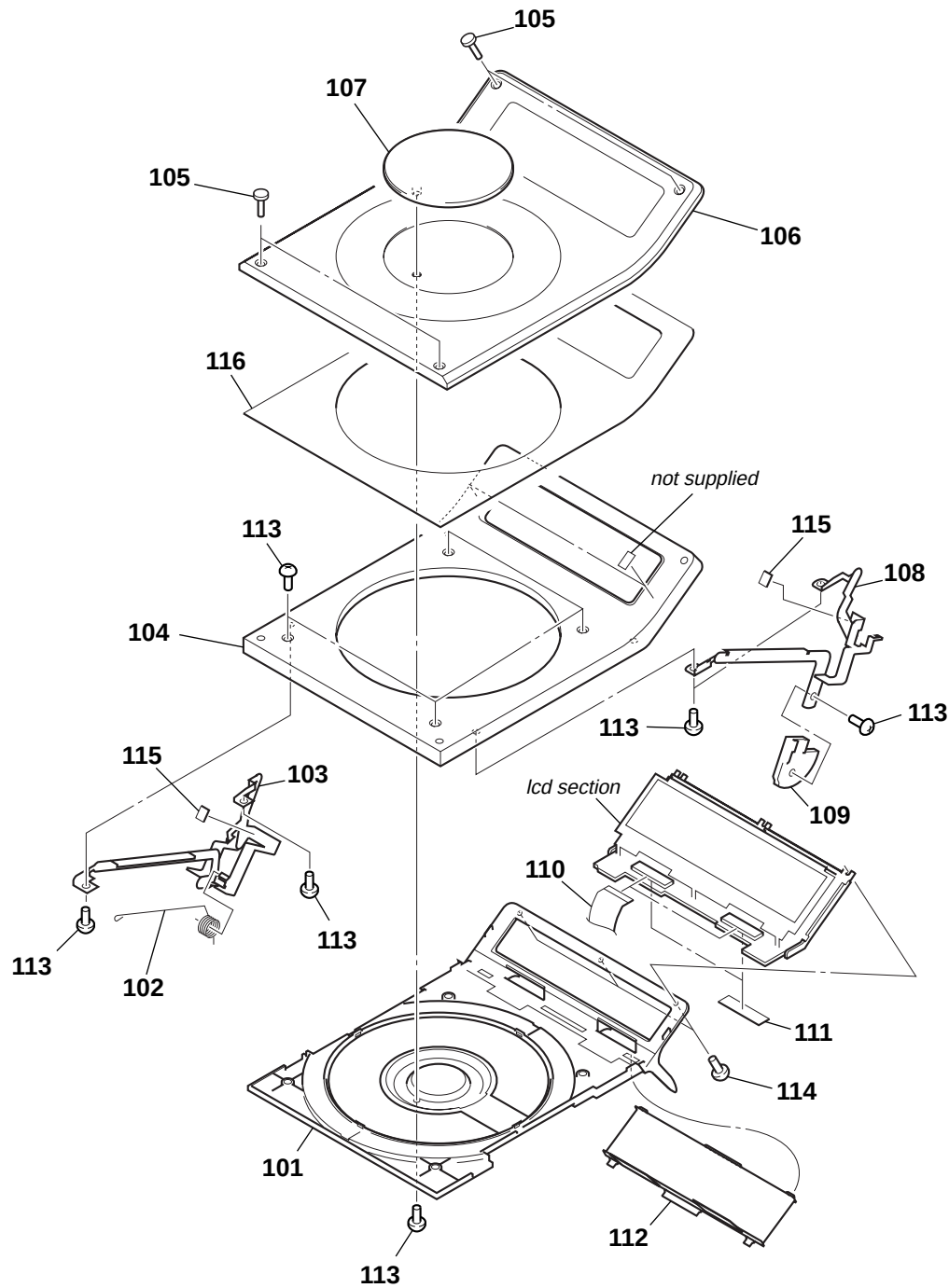
Pin No.	Pin Name	I/O	Description
1, 2	NC	—	Not used
3 to 5	VLC2 to VLC0	—	Terminal for doubler circuit capacitor connection to develop liquid crystal display drive voltage
6 to 9	COM0 to COM3	O	Common drive signal output to the liquid crystal display
10 to 37	SEG0 to SEG27	O	Segment drive signal output to the liquid crystal display
38	AVDD	—	Power supply terminal (+3.3V) (analog system)
39	FSEQ	I	CD synchronizing signal detection signal input from the digital signal processor
40	CD OPEN	I	CD lid open/close detect switch input terminal “L”: CD lid is closed, “H”: CD lid is opened
41	DRF	I	CD focus on/off detection signal input from the digital signal processor
42	VERSION	I	Setting input terminal for destination
43 to 46	KEY3 to KEY0	I	Key input terminal (A/D input)
47	AVSS	—	Ground terminal (for analog system)
48	R CLK	O	PLL serial data transfer clock signal output to the FM/AM PLL
49	AC IN	I	Power detection signal input terminal when connected AC power adapter (A/D input)
50	WRQ	I	CD interruption signal input from the digital signal processor
51	MUTE	O	Tuner muting on/off control signal output to the FM/AM PLL “L”: muting on
52	BUZZER	O	Beep sound signal output terminal
53	CD DATA-IN	I	Serial data input from the digital signal processor
54	CD DATA	O	Serial data output to the digital signal processor
55	CD CLK	O	Serial data transfer clock signal output to the digital signal processor
56	CD CE	O	Chip enable signal output to the digital signal processor
57	R DATA	O	PLL serial data output to the FM/AM PLL
58	XRST	O	System reset signal output to the digital signal processor “L”: reset
59	R CE	O	PLL chip enable signal output to the FM/AM PLL
60	POWER ON	O	Power on/off control signal output terminal for the power amplifier “L”: standby mode, “H”: power amplifier on
61	ALARM A BUZ	O	LED drive signal output terminal for ALARM A BUZZER indicator
62	ALARM A RADIO	O	LED drive signal output terminal for ALARM A RADIO indicator
63	ALARM A CD	O	LED drive signal output terminal for ALARM A CD indicator
64	VOL CLK	O	Serial data transfer clock signal output to the electrical volume
65	VOL DAT	O	Serial data output to the electrical volume
66	ALARM B BUZ	O	LED drive signal output terminal for ALARM B BUZZER indicator
67	ALARM B RADIO	O	LED drive signal output terminal for ALARM B RADIO indicator
68	ALARM B CD	O	LED drive signal output terminal for ALARM B CD indicator
69	IC	—	Ground terminal
70	XT1	I	Sub system clock input terminal (32.768 kHz)
71	XT2	O	Sub system clock output terminal (32.768 kHz)
72	VDD0	—	Power supply terminal (+3.3V)
73	VSS0	—	Ground terminal
74	X1	I	Main system clock input terminal (4.19 MHz)
75	X2	O	Main system clock output terminal (4.19 MHz)
76	RESET	I	System reset signal input from the reset signal generator “L”: reset For several hundreds msec. after the power supply rises, “L” is input, then it changes to “H”
77	AMUTE	O	Audio muting on/off control signal output terminal “L”: muting on
78	RADIO ON	O	Power on/off control signal output for the tuner section “L”: tuner power on
79	CD ON	O	Power on/off control signal output for the CD section “L”: CD power on
80	NC	I	Not used

7-2. CABINET (REAR) BLOCK SECTION



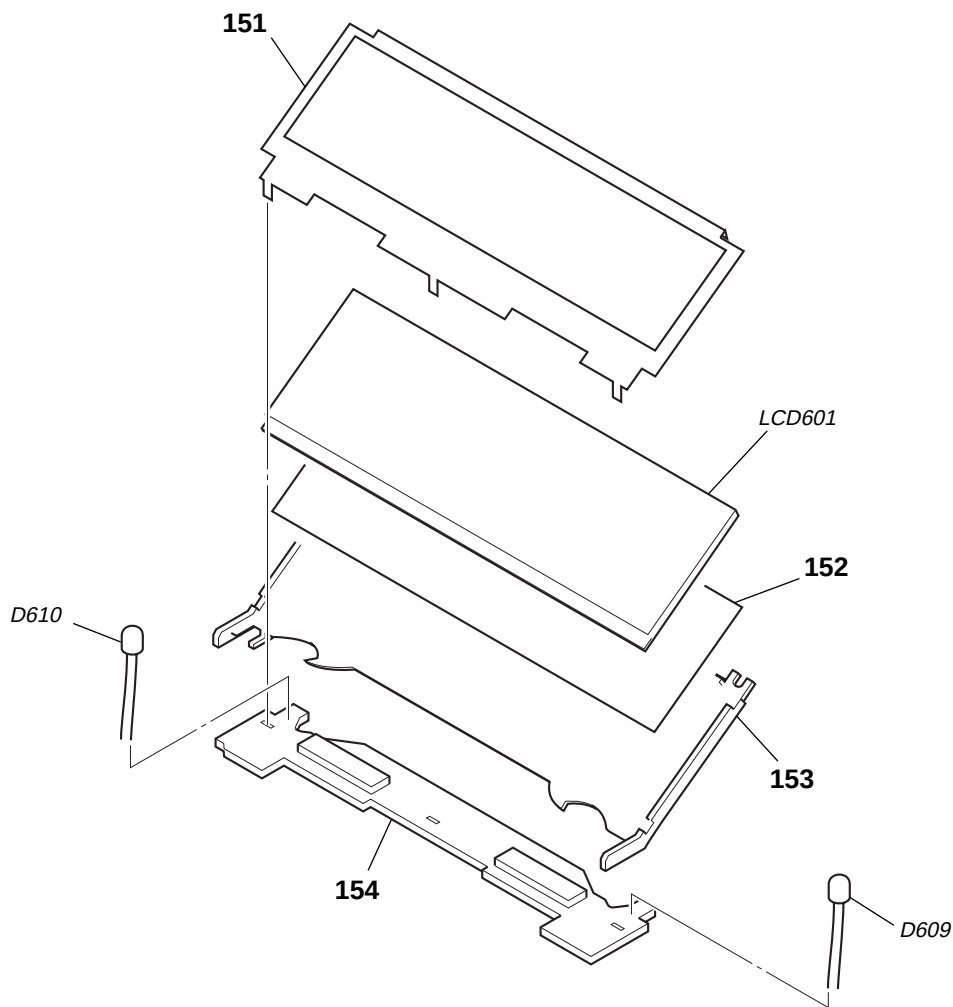
<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
51	3-254-081-01	SCREW		54	X-3384-707-1	CABINET (REAR) SUB ASSY (WHITE)	
52	3-840-486-12	CUSHION, SPEAKER		55	3-262-670-01	BUTTON (SIDE) (VOL + -. MODE) (SILVER)	
53	3-266-566-01	SHEET (REAR)		55	3-262-670-11	BUTTON (SIDE) (VOL + -. MODE) (WHITE)	
54	X-3384-706-1	CABINET (REAR) SUB ASSY (SILVER)					

7-3. CD LID SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	3-262-662-01	LID (LOWER), CD (SILVER)		109	3-262-676-01	GEAR (ARM) (SILVER)	
101	3-262-662-11	LID (LOWER), CD (WHITE)		109	3-262-676-11	GEAR (ARM) (WHITE)	
102	3-262-698-01	SPRING (CD LID)		110	1-829-092-11	CABLE, FLEXIBLE FLAT (18 CORE)	
103	X-3384-590-1	ARM (L) ASSY		111	3-265-480-01	SHEET (A)	
104	3-262-661-01	LID (UPPER), CD (SILVER)		112	3-262-812-01	COVER (FFC) (SILVER)	
104	3-262-661-11	LID (UPPER), CD (WHITE)		112	3-262-812-11	COVER (FFC) (WHITE)	
105	3-262-705-01	SCREW, HEXAGON HOLE TAPPING		113	3-254-058-01	SCREW	
106	3-262-663-01	PLATE (CD LID) (SILVER)		114	3-254-081-01	SCREW	
106	3-262-663-11	PLATE (CD LID) (WHITE)		115	3-267-409-01	CUSHION (CD LID)	
107	3-262-677-01	PLATE, ORNAMENTAL		116	3-267-705-01	SHEET (CD LID) (SILVER)	
108	X-3384-591-1	ARM (R) ASSY		116	3-267-705-11	SHEET (CD LID) (WHITE)	

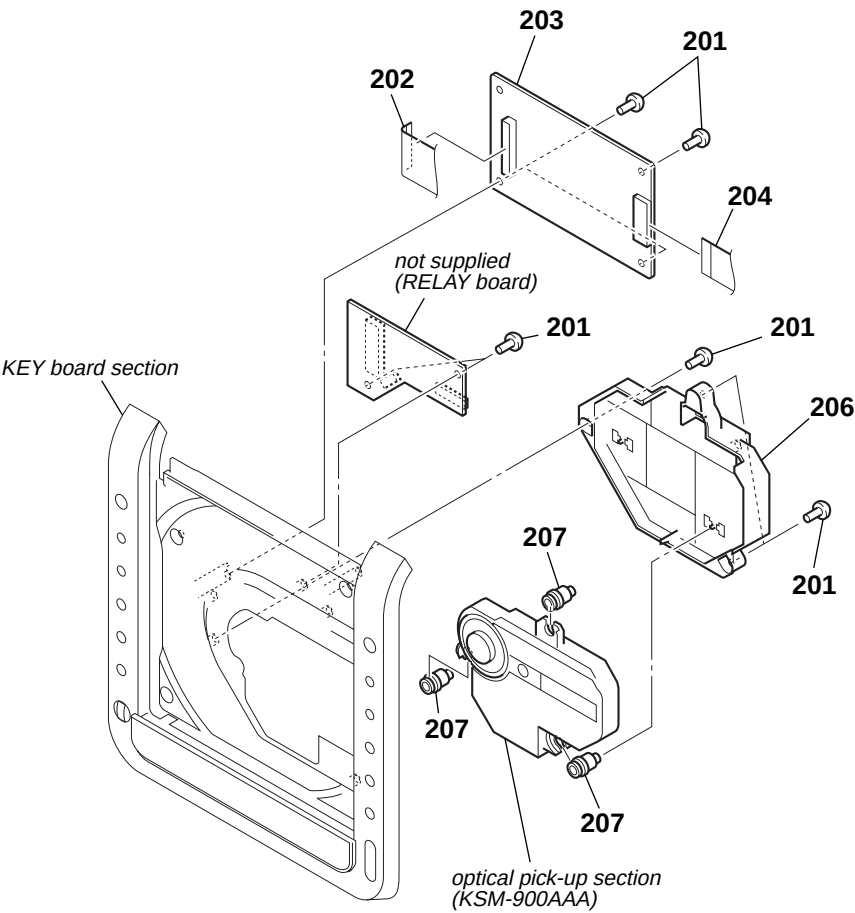
7-4. LCD SECTION



Ref. No.	Part No.	Description	Remark
151	3-262-683-01	CASE (LCD), SHIELD	
152	3-267-408-01	ILLUMINATOR	
153	3-262-678-01	HOLDER (LCD)	
* 154	A-4542-935-A	LCD BOARD, COMPLETE	

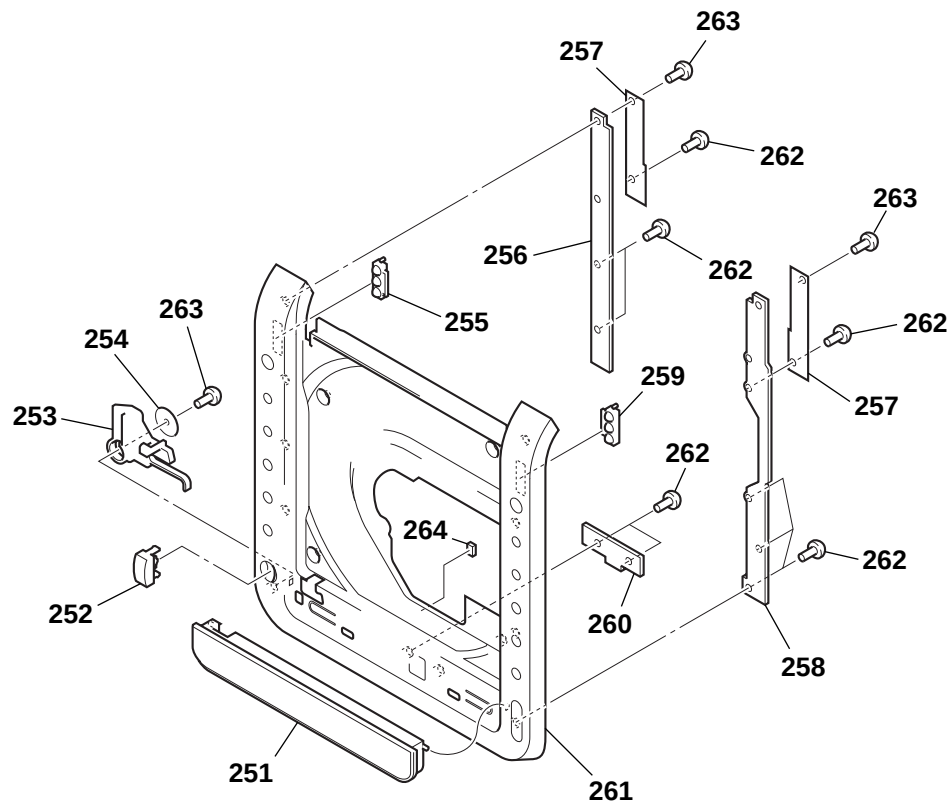
Ref. No.	Part No.	Description	Remark
D609	6-500-915-01	LED SLP-WH118A-51-SW (LCD BACK LIGHT)	
D610	6-500-915-01	LED SLP-WH118A-51-SW (LCD BACK LIGHT)	
LCD601	1-805-525-11	DISPLAY PANEL, LIQUID CRYSTAL	

7-5. CABINET (UPPER) SECTION



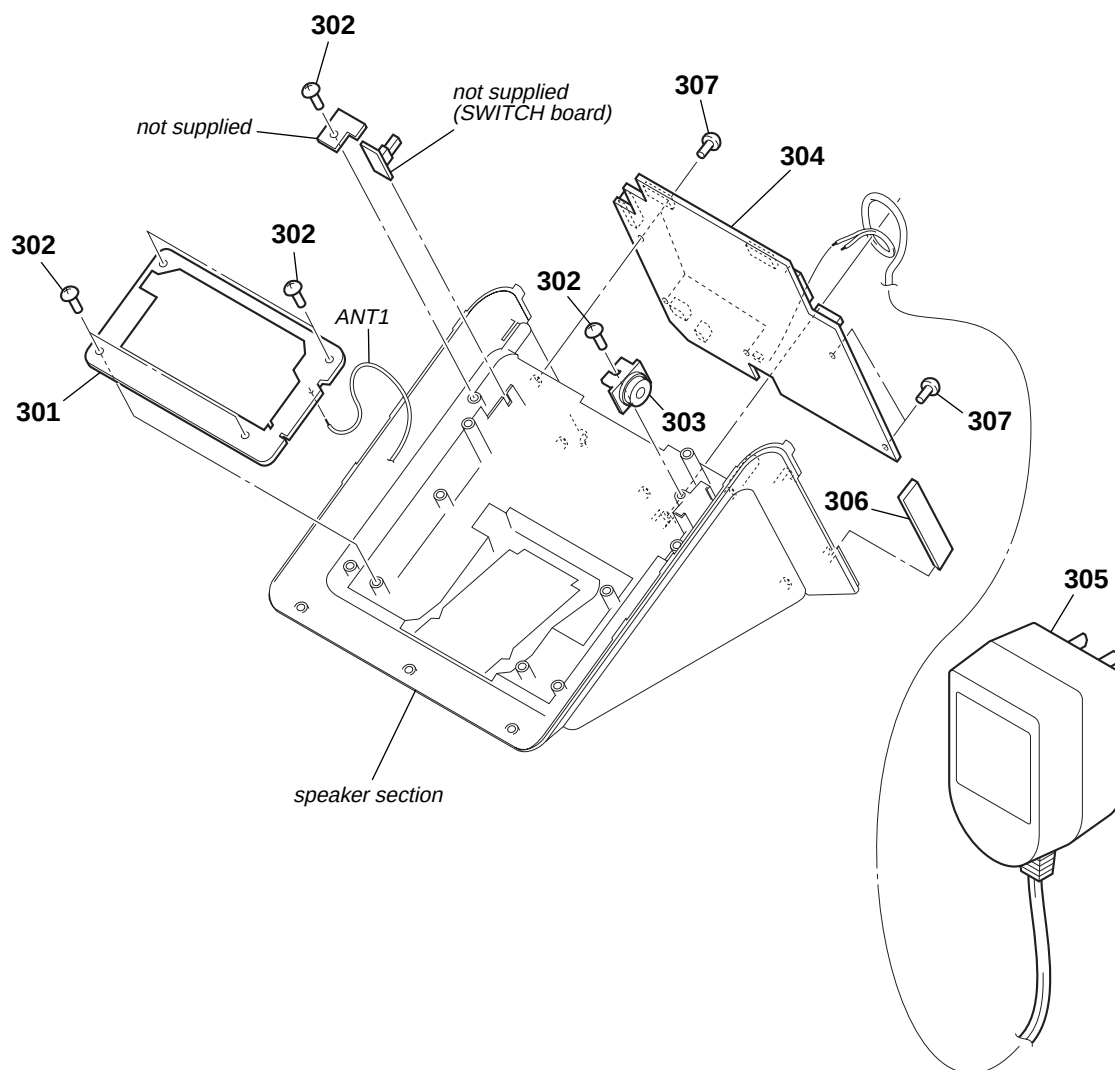
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	3-254-151-01	SCREW (B2.6), (+) P TAPPING		204	1-829-090-11	CABLE, FLEXIBLE FLAT (14 CORE)	
202	1-829-091-11	CABLE, FLEXIBLE FLAT (20 CORE)		206	3-262-667-01	CHASSIS (CD)	
* 203	A-4542-926-A	CD BOARD, COMPLETE		207	4-975-762-11	INSULATOR	

7-6. KEY BOARD SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	X-2021-197-1	BUTTON (SNOOZE) SUB ASSY (SILVER)		* 258	A-4542-919-A	KEY-B BOARD, COMPLETE	
251	X-2021-198-1	BUTTON (SNOOZE) SUB ASSY (WHITE)		259	3-262-680-01	INDICATOR (ALARM) B	
252	3-262-674-01	BUTTON (OPEN) (▲) (SILVER)		* 260	A-4542-922-A	SNOOZE BOARD, COMPLETE	
252	3-262-674-11	BUTTON (OPEN) (▲) (WHITE)		261	X-3384-667-1	CABINET (UPPER) SUB ASSY (SILVER)	
253	3-262-665-01	SLIDER (OPEN)		261	X-3384-668-1	CABINET (UPPER) SUB ASSY (WHITE)	
254	3-262-706-01	WASHER (SLIDER)		262	3-254-081-01	SCREW	
255	3-262-679-01	INDICATOR (ALARM) A		263	3-254-058-01	SCREW	
* 256	A-4542-916-A	KEY-A BOARD, COMPLETE		264	3-265-479-01	CUSHION (OP)	
257	3-266-652-01	SHEET (KEY), INSULATING					

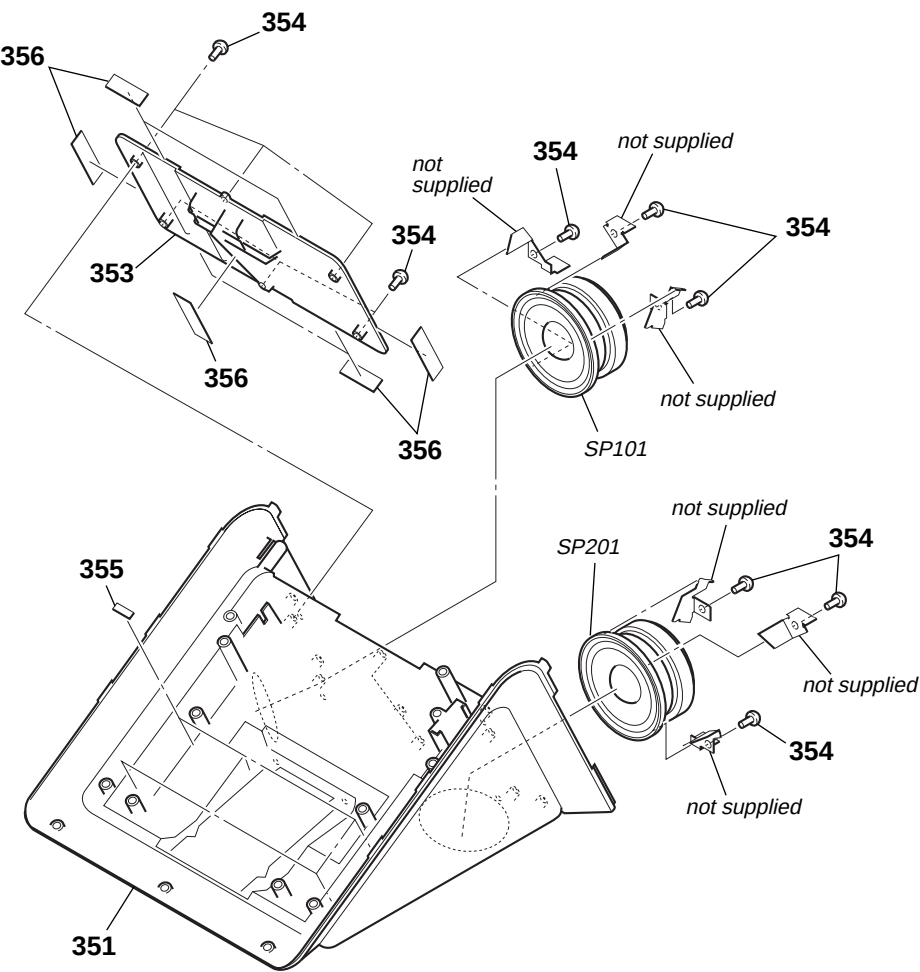
7-7. CABINET (LOWER) BLOCK SECTION



The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

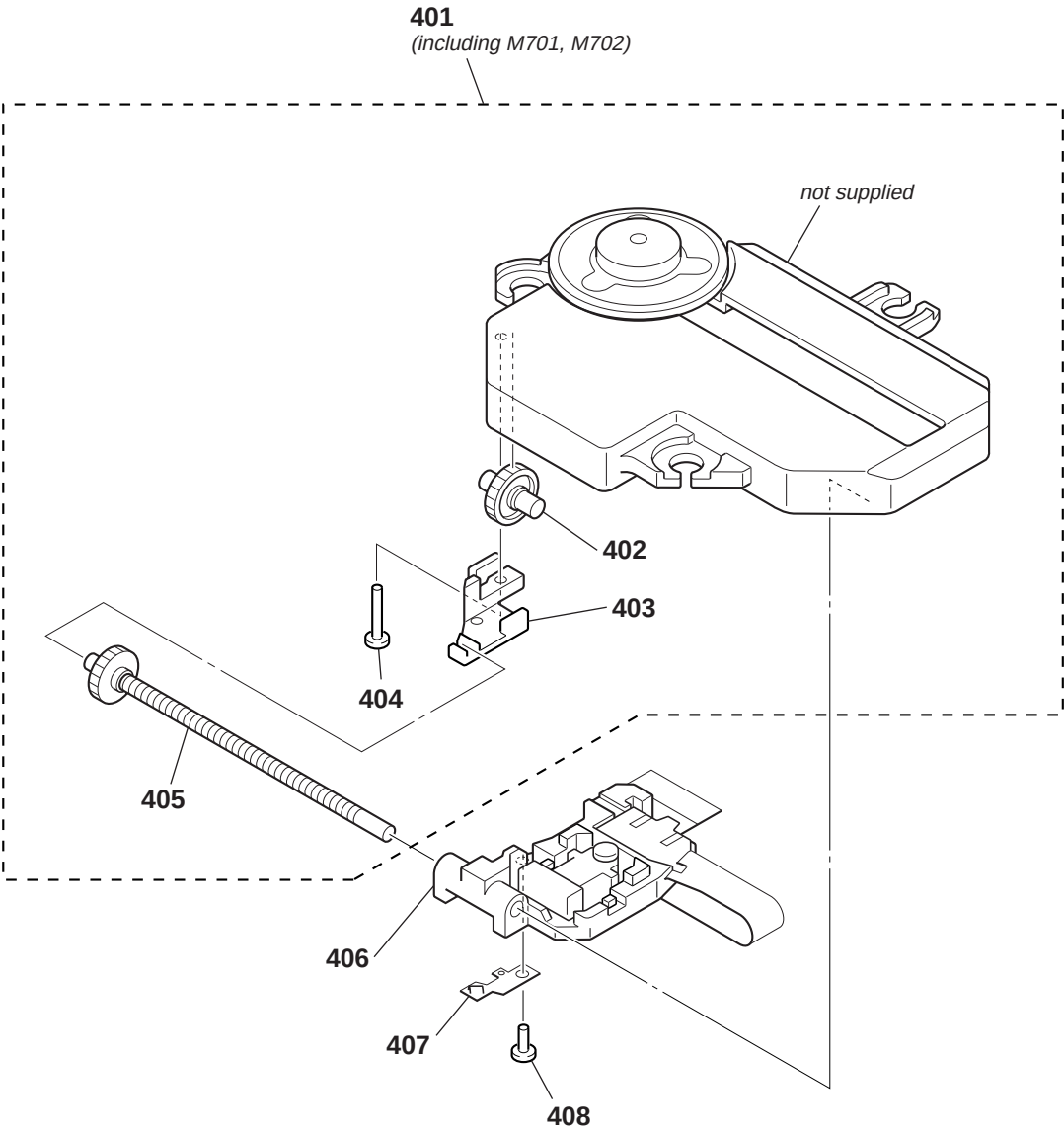
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 301	A-3683-339-A	TUNER BOARD, COMPLETE (WHITE)		Δ 305	1-468-809-11	POWER UNIT	
* 301	A-4547-329-A	TUNER BOARD, COMPLETE (SILVER)		* 306	A-4542-931-A	SIDE BOARD, COMPLETE	
302	3-254-151-01	SCREW (B2.6), (+) P TAPPING		307	3-254-143-01	SCREW (B3), (+) BV TAPPING	
303	3-047-468-11	DAMPER		ANT1	1-754-329-11	ANTENNA, FM WIRE	
* 304	A-4542-928-A	MAIN BOARD, COMPLETE					

7-8. SPEAKER SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
351	X-2021-192-1	CABINET (LOWER) SUB ASSY (SILVER)		355	3-265-480-01	SHEET (A)	
351	X-2021-193-1	CABINET (LOWER) SUB ASSY (WHITE)		356	3-840-486-12	CUSHION, SPEAKER	
353	3-262-666-01	COVER (SP)		SP101	1-825-679-11	SPEAKER (5.0cm)	
354	3-254-151-01	SCREW (B2.6), (+) P TAPPING		SP201	1-825-679-11	SPEAKER (5.0cm)	

7-9. OPTICAL PICK-UP SECTION
(KSM-900AAA)



The components identified by mark $\triangle$ or dotted line with mark $\triangle$ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 401	A-4902-666-A	MD ASSY (900AAA-RP)		405	X-2162-234-1	SCREW ASSY (780E), SLED	
		(Including M701, M702)		$\triangle$ 406	8-820-137-02	OPTICAL PICK-UP KSS-900A/C2RP	
402	2-165-627-02	GEAR B (780C)		407	2-165-630-02	SPRING (780C), RACK	
403	2-165-626-01	HOLDER (780C)		408	2-646-358-11	SCREW (B1.7X4)	
404	2-646-352-01	SCREW (2X8)					

SECTION 8
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA. . : μ A. . uPA. . : μ PA. .
uPB. . : μ PB. . uPC. . : μ PC. .
uPD. . : μ PD. .
- CAPACITORS
uF: μ F
- COILS
uH: μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
*	A-4542-926-A	CD BOARD, COMPLETE *****							< CONNECTOR >				
		< CAPACITOR >					CNP701	1-784-781-11	CONNECTOR, FFC 20P				
							* CNP702	1-784-736-11	CONNECTOR, FFC 14P				
C701	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V				< SHORT >				
C702	1-126-947-11	ELECT	47uF	20%	35V								
C703	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V		FB701	1-216-864-11	SHORT CHIP	0			
C704	1-162-919-11	CERAMIC CHIP	22PF	5%	50V								
C705	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V				< IC >				
C706	1-126-960-11	ELECT	1uF	20%	50V		IC701	6-701-796-01	IC	LC78646E-E			
C707	1-115-156-11	CERAMIC CHIP	1uF		10V		IC702	6-701-787-11	IC	BA5826FP-E2			
C708	1-162-927-11	CERAMIC CHIP	100PF	5%	50V								
C709	1-164-156-11	CERAMIC CHIP	0.1uF		25V				< SHORT >				
C711	1-162-974-11	CERAMIC CHIP	0.01uF		50V								
C716	1-162-974-11	CERAMIC CHIP	0.01uF		50V		JC703	1-216-864-11	SHORT CHIP	0			
C717	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V		JC704	1-216-864-11	SHORT CHIP	0			
C720	1-162-919-11	CERAMIC CHIP	22PF	5%	50V		JC705	1-216-864-11	SHORT CHIP	0			
C721	1-162-919-11	CERAMIC CHIP	22PF	5%	50V		JC706	1-216-864-11	SHORT CHIP	0			
C722	1-162-919-11	CERAMIC CHIP	22PF	5%	50V		JC707	1-216-864-11	SHORT CHIP	0			
C723	1-162-974-11	CERAMIC CHIP	0.01uF		50V		JC708	1-216-864-11	SHORT CHIP	0			
C724	1-162-919-11	CERAMIC CHIP	22PF	5%	50V		JC709	1-216-864-11	SHORT CHIP	0			
C725	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V		JC710	1-216-864-11	SHORT CHIP	0			
C726	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V		JC711	1-216-864-11	SHORT CHIP	0			
C727	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V				< SHORT >				
C728	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V		L706	1-216-864-11	SHORT CHIP	0			
C729	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V								
C730	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V				< TRANSISTOR >				
C731	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V								
C733	1-104-658-91	ELECT	100uF	20%	10V		Q701	8-729-054-57	TRANSISTOR	KTN2907AS-RTK			
C734	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V				< RESISTOR >				
C735	1-126-916-11	ELECT	1000uF	20%	6.3V								
C736	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V		R702	1-216-833-11	METAL CHIP	10K	5%	1/10W	
C740	1-126-925-91	ELECT	470uF	20%	10V		R703	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
C741	1-164-156-11	CERAMIC CHIP	0.1uF		25V		R704	1-216-833-11	METAL CHIP	10K	5%	1/10W	
							R706	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
C742	1-164-156-11	CERAMIC CHIP	0.1uF		25V		R707	1-216-797-11	METAL CHIP	10	5%	1/10W	
C743	1-164-156-11	CERAMIC CHIP	0.1uF		25V								
C744	1-164-156-11	CERAMIC CHIP	0.1uF		25V		R708	1-216-833-11	METAL CHIP	10K	5%	1/10W	
C745	1-164-156-11	CERAMIC CHIP	0.1uF		25V		R709	1-216-837-11	METAL CHIP	22K	5%	1/10W	
C746	1-104-658-91	ELECT	100uF	20%	10V		R710	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
							R711	1-216-813-11	METAL CHIP	220	5%	1/10W	
C751	1-164-156-11	CERAMIC CHIP	0.1uF		25V		R712	1-216-809-11	METAL CHIP	100	5%	1/10W	
C754	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V								
C755	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V		R713	1-216-809-11	METAL CHIP	100	5%	1/10W	
							R714	1-216-853-11	METAL CHIP	470K	5%	1/10W	
							R715	1-216-849-11	METAL CHIP	220K	5%	1/10W	

CD

KEY-A

KEY-B

Ref. No.	Part No.	Description			Remark
R716	1-216-821-11	METAL CHIP	1K	5%	1/10W
R717	1-216-821-11	METAL CHIP	1K	5%	1/10W
R718	1-216-821-11	METAL CHIP	1K	5%	1/10W
R719	1-216-809-11	METAL CHIP	100	5%	1/10W
R720	1-216-809-11	METAL CHIP	100	5%	1/10W
R721	1-216-821-11	METAL CHIP	1K	5%	1/10W
R722	1-216-809-11	METAL CHIP	100	5%	1/10W
R723	1-216-809-11	METAL CHIP	100	5%	1/10W
R724	1-216-841-11	METAL CHIP	47K	5%	1/10W
R725	1-216-817-11	METAL CHIP	470	5%	1/10W
R726	1-216-817-11	METAL CHIP	470	5%	1/10W
R727	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R728	1-216-833-11	METAL CHIP	10K	5%	1/10W
R729	1-216-813-11	METAL CHIP	220	5%	1/10W
R730	1-216-821-11	METAL CHIP	1K	5%	1/10W
R731	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R732	1-216-813-11	METAL CHIP	220	5%	1/10W
R733	1-216-813-11	METAL CHIP	220	5%	1/10W
R739	1-216-821-11	METAL CHIP	1K	5%	1/10W
R740	1-216-849-11	METAL CHIP	220K	5%	1/10W
R741	1-216-833-11	METAL CHIP	10K	5%	1/10W
R742	1-216-853-11	METAL CHIP	470K	5%	1/10W
R744	1-216-845-11	METAL CHIP	100K	5%	1/10W
R746	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R747	1-216-837-11	METAL CHIP	22K	5%	1/10W
R748	1-216-809-11	METAL CHIP	100	5%	1/10W
R750	1-216-809-11	METAL CHIP	100	5%	1/10W
R751	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
< VIBRATOR >					
X701	1-781-801-21	VIBRATOR, CERAMIC (16.9344MHz)			

*	A-4542-916-A	KEY-A BOARD, COMPLETE			

< CAPACITOR >					
C611	1-115-156-11	CERAMIC CHIP	1uF		10V
C612	1-115-156-11	CERAMIC CHIP	1uF		10V
C613	1-115-156-11	CERAMIC CHIP	1uF		10V
< LED >					
D601	6-500-040-01	LED TOL-31CSGAKAA-KS01			
(ALARM A BUZZER					
D602	6-500-040-01	LED TOL-31CSGAKAA-KS01			
(ALARM A RADIO					
D603	6-500-040-01	LED TOL-31CSGAKAA-KS01 (ALARM A CD)			
< TRANSISTOR >					
Q601	8-729-029-14	TRANSISTOR	DTC144EUA-T106		
Q602	8-729-029-14	TRANSISTOR	DTC144EUA-T106		
Q603	8-729-029-14	TRANSISTOR	DTC144EUA-T106		
< RESISTOR >					
R601	1-216-821-11	METAL CHIP	1K	5%	1/10W
R603	1-216-821-11	METAL CHIP	1K	5%	1/10W
R605	1-216-821-11	METAL CHIP	1K	5%	1/10W
R607	1-216-849-11	METAL CHIP	220K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R608	1-216-853-11	METAL CHIP	470K	5%	1/10W
R609	1-216-849-11	METAL CHIP	220K	5%	1/10W
R610	1-216-845-11	METAL CHIP	100K	5%	1/10W
R611	1-216-841-11	METAL CHIP	47K	5%	1/10W
R612	1-216-853-11	METAL CHIP	470K	5%	1/10W
R613	1-216-841-11	METAL CHIP	47K	5%	1/10W
R614	1-216-841-11	METAL CHIP	47K	5%	1/10W
R615	1-216-845-11	METAL CHIP	100K	5%	1/10W
R616	1-216-837-11	METAL CHIP	22K	5%	1/10W
R617	1-216-837-11	METAL CHIP	22K	5%	1/10W
R618	1-216-841-11	METAL CHIP	47K	5%	1/10W
< SWITCH >					
S601	1-786-097-21	SWITCH, TACT (5)			
S602	1-786-097-21	SWITCH, TACT (4)			
S603	1-786-097-21	SWITCH, TACT (3)			
S604	1-786-097-21	SWITCH, TACT (2)			
S605	1-786-097-21	SWITCH, TACT (1)			
S606	1-786-097-21	SWITCH, TACT (ALARM A)			

*	A-4542-919-A	KEY-B BOARD, COMPLETE			

< CAPACITOR >					
C601	1-115-156-11	CERAMIC CHIP	1uF		10V
C602	1-115-156-11	CERAMIC CHIP	1uF		10V
C603	1-115-156-11	CERAMIC CHIP	1uF		10V
C604	1-115-156-11	CERAMIC CHIP	1uF		10V
< LED >					
D604	6-500-040-01	LED TOL-31CSGAKAA-KS01	(ALARM B BUZZER		
D605	6-500-040-01	LED TOL-31CSGAKAA-KS01	(ALARM B RADIO		
D606	6-500-040-01	LED TOL-31CSGAKAA-KS01	(ALARM B CD)		
< TRANSISTOR >					
Q604	8-729-029-14	TRANSISTOR	DTC144EUA-T106		
Q605	8-729-029-14	TRANSISTOR	DTC144EUA-T106		
Q606	8-729-029-14	TRANSISTOR	DTC144EUA-T106		
< RESISTOR >					
R619	1-216-849-11	METAL CHIP	220K	5%	1/10W
R620	1-216-853-11	METAL CHIP	470K	5%	1/10W
R621	1-216-849-11	METAL CHIP	220K	5%	1/10W
R622	1-216-845-11	METAL CHIP	100K	5%	1/10W
R623	1-216-853-11	METAL CHIP	470K	5%	1/10W
R624	1-216-841-11	METAL CHIP	47K	5%	1/10W
R625	1-216-841-11	METAL CHIP	47K	5%	1/10W
R626	1-216-841-11	METAL CHIP	47K	5%	1/10W
R627	1-216-845-11	METAL CHIP	100K	5%	1/10W
R628	1-216-837-11	METAL CHIP	22K	5%	1/10W
R629	1-216-837-11	METAL CHIP	22K	5%	1/10W
R630	1-216-841-11	METAL CHIP	47K	5%	1/10W
R631	1-216-809-11	METAL CHIP	100	5%	1/10W
R632	1-216-853-11	METAL CHIP	470K	5%	1/10W
R633	1-216-841-11	METAL CHIP	47K	5%	1/10W

ICF-CD855V

KEY-B	LCD	MAIN
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Ref. No.	Part No.	Description	Remark		
R634	1-216-841-11	METAL CHIP 47K 5%	1/10W		
R635	1-216-841-11	METAL CHIP 47K 5%	1/10W		
R636	1-216-821-11	METAL CHIP 1K 5%	1/10W		
R638	1-216-821-11	METAL CHIP 1K 5%	1/10W		
R640	1-216-821-11	METAL CHIP 1K 5%	1/10W		
< SWITCH >					
S607	1-786-097-21	SWITCH, TACT (TUNE/TIME SET +, ►►)			
S608	1-786-097-21	SWITCH, TACT (RADIO ON, BAND)			
S609	1-786-097-21	SWITCH, TACT (CD ►►)			
S610	1-786-097-21	SWITCH, TACT (SLEEP)			
S611	1-786-097-21	SWITCH, TACT (NAP)			
S612	1-786-097-21	SWITCH, TACT (ALARM B)			
S613	1-786-097-21	SWITCH, TACT (TUNE/TIME SET -, ◀◀)			
S614	1-786-097-21	SWITCH, TACT (OFF ■, ALARM RESET)			

*	A-4542-935-A	LCD BOARD, COMPLETE			

< CAPACITOR >					
C607	1-115-156-11	CERAMIC CHIP 1uF	10V		
C610	1-115-156-11	CERAMIC CHIP 1uF	10V		
C618	1-115-156-11	CERAMIC CHIP 1uF	10V		
C619	1-115-156-11	CERAMIC CHIP 1uF	10V		
< CONNECTOR >					
CNP606	1-779-555-21	CONNECTOR, FFC (LIF (NON-ZIF)) 18P			
CNP607	1-779-555-21	CONNECTOR, FFC (LIF (NON-ZIF)) 18P			
< LED >					
D609	6-500-915-01	LED SLP-WH118A-51-SW (LCD BACK LIGHT)			
D610	6-500-915-01	LED SLP-WH118A-51-SW (LCD BACK LIGHT)			
< SHORT >					
JC605	1-216-864-11	SHORT CHIP 0			
< LIQUID CRYSTAL DISPLAY >					
LCD601	1-805-525-11	DISPLAY PANEL, LIQUID CRYSTAL			
< TRANSISTOR >					
Q609	8-729-028-73	TRANSISTOR DTA114EUA-T106			
Q610	8-729-028-83	TRANSISTOR DTA124EUA-T106			
Q611	8-729-028-73	TRANSISTOR DTA114EUA-T106			
Q612	8-729-028-83	TRANSISTOR DTA124EUA-T106			
< RESISTOR >					
R655	1-216-817-11	METAL CHIP 470 5%	1/10W		
R656	1-216-821-11	METAL CHIP 1K 5%	1/10W		
R658	1-216-821-11	METAL CHIP 1K 5%	1/10W		
R660	1-216-809-11	METAL CHIP 100 5%	1/10W		
R661	1-216-817-11	METAL CHIP 470 5%	1/10W		
R662	1-216-821-11	METAL CHIP 1K 5%	1/10W		
R664	1-216-821-11	METAL CHIP 1K 5%	1/10W		
R666	1-216-809-11	METAL CHIP 100 5%	1/10W		

Ref. No.	Part No.	Description	Remark		
*	A-4542-928-A	MAIN BOARD, COMPLETE			

	3-253-143-01	SCREW (B2.6), (+) P TAPPING			
< CAPACITOR >					
C101	1-125-837-11	CERAMIC CHIP 1uF	10%	6.3V	
C102	1-125-837-11	CERAMIC CHIP 1uF	10%	6.3V	
C103	1-107-826-11	CERAMIC CHIP 0.1uF	10%	16V	
C106	1-107-826-11	CERAMIC CHIP 0.1uF	10%	16V	
C107	1-107-826-11	CERAMIC CHIP 0.1uF	10%	16V	
C108	1-162-964-11	CERAMIC CHIP 0.001uF	10%	50V	
C109	1-164-315-11	CERAMIC CHIP 470PF	5%	50V	
C110	1-126-947-11	ELECT 47uF	20%	35V	
C111	1-125-837-11	CERAMIC CHIP 1uF	10%	6.3V	
C112	1-162-964-11	CERAMIC CHIP 0.001uF	10%	50V	
C114	1-125-837-11	CERAMIC CHIP 1uF	10%	6.3V	
C115	1-164-315-11	CERAMIC CHIP 470PF	5%	50V	
C117	1-126-916-11	ELECT 1000uF	20%	6.3V	
C118	1-117-863-11	CERAMIC CHIP 0.47uF	10%	6.3V	
C119	1-128-551-11	ELECT 22uF	20%	63V	
C120	1-126-963-11	ELECT 4.7uF	20%	50V	
C121	1-162-966-11	CERAMIC CHIP 0.0022uF	10%	50V	
C201	1-125-837-11	CERAMIC CHIP 1uF	10%	6.3V	
C202	1-125-837-11	CERAMIC CHIP 1uF	10%	6.3V	
C203	1-107-826-11	CERAMIC CHIP 0.1uF	10%	16V	
C206	1-107-826-11	CERAMIC CHIP 0.1uF	10%	16V	
C207	1-107-826-11	CERAMIC CHIP 0.1uF	10%	16V	
C208	1-162-964-11	CERAMIC CHIP 0.001uF	10%	50V	
C209	1-164-315-11	CERAMIC CHIP 470PF	5%	50V	
C210	1-126-947-11	ELECT 47uF	20%	35V	
C211	1-125-837-11	CERAMIC CHIP 1uF	10%	6.3V	
C212	1-162-964-11	CERAMIC CHIP 0.001uF	10%	50V	
C214	1-125-837-11	CERAMIC CHIP 1uF	10%	6.3V	
C215	1-164-315-11	CERAMIC CHIP 470PF	5%	50V	
C217	1-126-916-11	ELECT 1000uF	20%	6.3V	
C218	1-117-863-11	CERAMIC CHIP 0.47uF	10%	6.3V	
C219	1-128-551-11	ELECT 22uF	20%	63V	
C220	1-126-963-11	ELECT 4.7uF	20%	50V	
C221	1-162-966-11	CERAMIC CHIP 0.0022uF	10%	50V	
C302	1-162-970-11	CERAMIC CHIP 0.01uF	10%	25V	
C304	1-104-665-11	ELECT 100uF	20%	25V	
C309	1-135-834-11	CERAMIC CHIP 2.2UF		6.3V	
C310	1-135-834-11	CERAMIC CHIP 2.2UF		6.3V	
C311	1-126-947-11	ELECT 47uF	20%	35V	
C312	1-162-964-11	CERAMIC CHIP 0.001uF	10%	50V	
C313	1-162-964-11	CERAMIC CHIP 0.001uF	10%	50V	
C314	1-162-970-11	CERAMIC CHIP 0.01uF	10%	25V	
C315	1-126-947-11	ELECT 47uF	20%	35V	
C316	1-107-826-11	CERAMIC CHIP 0.1uF	10%	16V	
C317	1-115-467-11	CERAMIC CHIP 0.22uF	10%	10V	
C318	1-162-966-11	CERAMIC CHIP 0.0022uF	10%	50V	
C319	1-164-227-11	CERAMIC CHIP 0.022uF	10%	25V	
C320	1-126-963-11	ELECT 4.7uF	20%	50V	
C322	1-104-665-11	ELECT 100uF	20%	25V	
C323	1-126-963-11	ELECT 4.7uF	20%	50V	
C324	1-162-970-11	CERAMIC CHIP 0.01uF	10%	25V	
C325	1-126-963-11	ELECT 4.7uF	20%	50V	

Ref. No.	Part No.	Description	Remark		Ref. No.	Part No.	Description	Remark	
C327	1-126-947-11	ELECT	47uF	20%	35V	C914	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V
C401	1-115-156-11	CERAMIC CHIP	1uF		10V	C915	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V
C402	1-115-156-11	CERAMIC CHIP	1uF		10V	C917	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V
C403	1-115-156-11	CERAMIC CHIP	1uF		10V	C918	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V
C406	1-135-834-11	CERAMIC CHIP	2.2UF		6.3V	C919	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V
C408	1-104-665-11	ELECT	100uF	20%	25V	C921	1-104-665-11	ELECT	100uF 20% 25V
C409	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C922	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V
C410	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	C923	1-126-964-11	ELECT	10uF 20% 50V
C411	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	< CONNECTOR >			
C412	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	CNP301	1-779-555-21	CONNECTOR, FFC (LIF (NON-ZIF))	18P
C413	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	CNP302	1-779-555-21	CONNECTOR, FFC (LIF (NON-ZIF))	18P
C415	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	* CNP303	1-784-736-11	CONNECTOR, FFC	14P
C416	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	L CNP304	1-815-445-11	PIN, CONNECTOR (PWB)	4P
C417	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	CNP601	1-815-447-11	PIN, CONNECTOR (PWB)	6P
C418	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	* CNP602	1-815-448-11	PIN, CONNECTOR (PWB)	7P
C419	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	CNP901	1-815-443-11	PIN, CONNECTOR (PWB)	2P
C420	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	< DIODE >			
C421	1-164-230-11	CERAMIC CHIP	220PF	5%	50V	D101	8-719-081-97	DIODE	MMDL914T1
C422	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	D102	8-719-911-19	DIODE	1SS119-25
C423	1-164-230-11	CERAMIC CHIP	220PF	5%	50V	D103	8-719-081-97	DIODE	MMDL914T1
C424	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	D201	8-719-081-97	DIODE	MMDL914T1
C425	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	D202	8-719-911-19	DIODE	1SS119-25
C426	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	D203	8-719-081-97	DIODE	MMDL914T1
C427	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	D903	8-719-941-23	DIODE	DA204U
C428	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	D904	8-719-056-83	DIODE	UDZ-TE-17-6.8B
C429	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	D905	8-719-911-19	DIODE	1SS119-25
C430	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	D906	8-719-911-19	DIODE	1SS119-25
C431	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	D907	6-500-021-01	DIODE	MM3Z4V7ST1
C432	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	D908	6-500-099-01	DIODE	M1MA142WAT1
C433	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	< IC >			
C434	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	IC301	6-701-824-11	IC	BD3870FS-E2
C435	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	IC302	6-701-061-01	IC	LA4627
C436	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	IC401	6-803-862-01	IC	uPD789477GC-A39-8BT
C437	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	IC402	8-759-682-21	IC	XC61CN2002MR
C438	1-135-834-11	CERAMIC CHIP	2.2UF		6.3V	< JACK >			
C442	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	J301	1-815-325-11	JACK (㊦)	
C443	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	< SHORT >			
C444	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	JC301	1-216-864-11	SHORT CHIP	0
C445	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	JC302	1-216-864-11	SHORT CHIP	0
C447	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	< COIL >			
C448	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	L401	1-412-963-11	INDUCTOR	100uH
C449	1-126-935-11	ELECT	470uF	20%	16V	L402	1-400-182-21	INDUCTOR	220uH
C450	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	< TRANSISTOR >			
C453	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	Q101	8-729-030-53	TRANSISTOR	MSD1819A-RT1
C454	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	Q102	8-729-922-87	TRANSISTOR	2SD1757K-RS
C455	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	Q201	8-729-030-53	TRANSISTOR	MSD1819A-RT1
C457	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	Q202	8-729-922-87	TRANSISTOR	2SD1757K-RS
C458	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	Q301	8-729-028-81	TRANSISTOR	DTA123JUA-T106
C902	1-126-767-11	ELECT	1000uF	20%	16V	Q302	8-729-028-83	TRANSISTOR	DTA124EUA-T106
C903	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V				
C905	1-126-935-11	ELECT	470uF	20%	16V				
C907	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V				
C908	1-126-935-11	ELECT	470uF	20%	16V				
C909	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V				
C910	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V				
C911	1-126-935-11	ELECT	470uF	20%	16V				
C912	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V				
C913	1-126-935-11	ELECT	470uF	20%	16V				

MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
Q401	6-550-607-01	TRANSISTOR	MUN5113T1			R403	1-216-845-11	METAL CHIP	100K	5%	1/10W
Q402	8-729-030-53	TRANSISTOR	MSD1819A-RT1			R405	1-216-845-11	METAL CHIP	100K	5%	1/10W
Q903	8-729-021-82	TRANSISTOR	2SD2396K			R407	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
Q904	8-729-030-53	TRANSISTOR	MSD1819A-RT1								
Q905	8-729-030-54	TRANSISTOR	MSB1218A-RT1			R408	1-216-837-11	METAL CHIP	22K	5%	1/10W
Q906	8-729-021-82	TRANSISTOR	2SD2396K			R410	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q907	8-729-030-53	TRANSISTOR	MSD1819A-RT1			R443	1-216-821-11	METAL CHIP	1K	5%	1/10W
Q908	8-729-036-86	TRANSISTOR	KTC3203Y-AT			R444	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q909	6-550-607-01	TRANSISTOR	MUN5113T1			R445	1-216-849-11	METAL CHIP	220K	5%	1/10W
< RESISTOR >						R446	1-216-833-11	METAL CHIP	10K	5%	1/10W
R101	1-216-837-11	METAL CHIP	22K	5%	1/10W	R447	1-216-864-11	SHORT CHIP	0		
R102	1-216-837-11	METAL CHIP	22K	5%	1/10W	R449	1-216-864-11	SHORT CHIP	0		
R103	1-216-837-11	METAL CHIP	22K	5%	1/10W	R451	1-216-833-11	METAL CHIP	10K	5%	1/10W
R104	1-216-821-11	METAL CHIP	1K	5%	1/10W	R453	1-216-845-11	METAL CHIP	100K	5%	1/10W
R105	1-216-849-11	METAL CHIP	220K	5%	1/10W						
R107	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R454	1-216-833-11	METAL CHIP	10K	5%	1/10W
R108	1-216-853-11	METAL CHIP	470K	5%	1/10W	R456	1-216-845-11	METAL CHIP	100K	5%	1/10W
R109	1-216-841-11	METAL CHIP	47K	5%	1/10W	R457	1-216-833-11	METAL CHIP	10K	5%	1/10W
R110	1-216-837-11	METAL CHIP	22K	5%	1/10W	R459	1-216-845-11	METAL CHIP	100K	5%	1/10W
R111	1-216-821-11	METAL CHIP	1K	5%	1/10W	R460	1-216-833-11	METAL CHIP	10K	5%	1/10W
R113	1-216-849-11	METAL CHIP	220K	5%	1/10W	R462	1-216-845-11	METAL CHIP	100K	5%	1/10W
R114	1-216-833-11	METAL CHIP	10K	5%	1/10W	R463	1-216-857-11	METAL CHIP	1M	5%	1/10W
R115	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R464	1-216-841-11	METAL CHIP	47K	5%	1/10W
R117	1-216-813-11	METAL CHIP	220	5%	1/10W	R465	1-216-837-11	METAL CHIP	22K	5%	1/10W
R119	1-216-821-11	METAL CHIP	1K	5%	1/10W	R466	1-216-821-11	METAL CHIP	1K	5%	1/10W
R120	1-216-845-11	METAL CHIP	100K	5%	1/10W	R467	1-216-821-11	METAL CHIP	1K	5%	1/10W
R121	1-216-841-11	METAL CHIP	47K	5%	1/10W	R468	1-216-821-11	METAL CHIP	1K	5%	1/10W
R123	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R469	1-216-821-11	METAL CHIP	1K	5%	1/10W
R201	1-216-837-11	METAL CHIP	22K	5%	1/10W	R470	1-216-821-11	METAL CHIP	1K	5%	1/10W
R202	1-216-837-11	METAL CHIP	22K	5%	1/10W	R471	1-216-805-11	METAL CHIP	47	5%	1/10W
R203	1-216-837-11	METAL CHIP	22K	5%	1/10W	R472	1-216-809-11	METAL CHIP	100	5%	1/10W
R204	1-216-821-11	METAL CHIP	1K	5%	1/10W	R473	1-216-821-11	METAL CHIP	1K	5%	1/10W
R205	1-216-849-11	METAL CHIP	220K	5%	1/10W	R474	1-216-821-11	METAL CHIP	1K	5%	1/10W
R207	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R475	1-216-821-11	METAL CHIP	1K	5%	1/10W
R208	1-216-853-11	METAL CHIP	470K	5%	1/10W	R476	1-216-821-11	METAL CHIP	1K	5%	1/10W
R209	1-216-841-11	METAL CHIP	47K	5%	1/10W	R477	1-216-821-11	METAL CHIP	1K	5%	1/10W
R210	1-216-837-11	METAL CHIP	22K	5%	1/10W	R478	1-216-821-11	METAL CHIP	1K	5%	1/10W
R211	1-216-821-11	METAL CHIP	1K	5%	1/10W	R479	1-216-833-11	METAL CHIP	10K	5%	1/10W
R213	1-216-849-11	METAL CHIP	220K	5%	1/10W	R480	1-216-833-11	METAL CHIP	10K	5%	1/10W
R214	1-216-833-11	METAL CHIP	10K	5%	1/10W	R481	1-216-833-11	METAL CHIP	10K	5%	1/10W
R215	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R482	1-216-821-11	METAL CHIP	1K	5%	1/10W
R217	1-216-813-11	METAL CHIP	220	5%	1/10W	R483	1-216-821-11	METAL CHIP	1K	5%	1/10W
R219	1-216-821-11	METAL CHIP	1K	5%	1/10W	R484	1-216-833-11	METAL CHIP	10K	5%	1/10W
R220	1-216-845-11	METAL CHIP	100K	5%	1/10W	R485	1-216-833-11	METAL CHIP	10K	5%	1/10W
R221	1-216-841-11	METAL CHIP	47K	5%	1/10W	R486	1-216-833-11	METAL CHIP	10K	5%	1/10W
R223	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R488	1-216-849-11	METAL CHIP	220K	5%	1/10W
R301	1-216-821-11	METAL CHIP	1K	5%	1/10W	R490	1-216-864-11	SHORT CHIP	0		
R302	1-216-821-11	METAL CHIP	1K	5%	1/10W	R491	1-216-833-11	METAL CHIP	10K	5%	1/10W
R303	1-216-821-11	METAL CHIP	1K	5%	1/10W	R492	1-216-821-11	METAL CHIP	1K	5%	1/10W
R308	1-216-821-11	METAL CHIP	1K	5%	1/10W	R493	1-216-821-11	METAL CHIP	1K	5%	1/10W
R309	1-216-821-11	METAL CHIP	1K	5%	1/10W	R494	1-216-821-11	METAL CHIP	1K	5%	1/10W
R310	1-216-833-11	METAL CHIP	10K	5%	1/10W	R496	1-216-853-11	METAL CHIP	470K	5%	1/10W
R311	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R497	1-216-809-11	METAL CHIP	100	5%	1/10W
R312	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R502	1-216-833-11	METAL CHIP	10K	5%	1/10W
R313	1-216-841-11	METAL CHIP	47K	5%	1/10W	R503	1-216-845-11	METAL CHIP	100K	5%	1/10W
R314	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R906	1-216-809-11	METAL CHIP	100	5%	1/10W
R401	1-216-845-11	METAL CHIP	100K	5%	1/10W	R909	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R910	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R911	1-216-805-11	METAL CHIP	47	5%	1/10W
						R912	1-216-809-11	METAL CHIP	100	5%	1/10W

MAIN						RELAY					
SIDE						SNOOZE					
SWITCH						TUNER					
Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R913	1-216-829-11	METAL CHIP	4.7K	5%	1/10W			SWITCH BOARD			
R914	1-216-825-11	METAL CHIP	2.2K	5%	1/10W			*****			
R915	1-216-809-11	METAL CHIP	100	5%	1/10W			< SWITCH >			
R916	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R917	1-216-821-11	METAL CHIP	1K	5%	1/10W	S619	1-571-936-11	SWITCH, LEAF (CD LID OPEN/CLOSE DETECT)			

R918	1-216-833-11	METAL CHIP	10K	5%	1/10W	*	A-3683-339-A	TUNER BOARD, COMPLETE (WHITE)			
R919	1-216-833-11	METAL CHIP	10K	5%	1/10W	*	A-4547-329-A	TUNER BOARD, COMPLETE (SILVER)			

		< SWITCH >						< BAND PASS FILTER >			
S401	1-570-853-11	SWITCH, SLIDE (BRIGHTNESS)									
S403	1-771-349-21	SWITCH, TACT (CLOCK)									
		< VIBRATOR >				BPF1	1-781-765-11	FILTER, BAND PASS			
								< CAPACITOR >			
X401	1-760-252-12	VIBRATOR, CRYSTAL (32.768kHz)				C1	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
X402	1-795-054-21	VIBRATOR, CERAMIC (4.19MHz)				C2	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
*****						C3	1-115-871-11	ELECT	1uF	20%	50V
		RELAY BOARD				C4	1-126-176-11	ELECT	220uF	20%	10V
		*****				C5	1-126-794-11	ELECT	4.7uF	20%	50V
		< CONNECTOR >				C6	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
CNP704	1-784-742-11	CONNECTOR, FFC 20P				C7	1-162-911-11	CERAMIC CHIP	6PF	0.5PF	50V
CNP705	1-779-553-21	CONNECTOR, FFC (LIF (NON-ZIF)) 16P				C9	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
* CNP706	1-566-761-11	PIN, CONNECTOR (PC BOARD) 6P				C10	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
*****						C11	1-162-911-11	CERAMIC CHIP	6PF	0.5PF	50V
*	A-4542-931-A	SIDE BOARD, COMPLETE				C13	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
		*****				C14	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
		< RESISTOR >				C15	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
R648	1-216-845-11	METAL CHIP	100K	5%	1/10W	C16	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
R649	1-216-837-11	METAL CHIP	22K	5%	1/10W	C18	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
R650	1-216-841-11	METAL CHIP	47K	5%	1/10W	C19	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
R651	1-216-837-11	METAL CHIP	22K	5%	1/10W	C20	1-128-801-11	CERAMIC	22PF	5%	50V
R652	1-216-837-11	METAL CHIP	22K	5%	1/10W	C21	1-128-817-51	CERAMIC	470PF	5%	50V
R653	1-216-841-11	METAL CHIP	47K	5%	1/10W	C22	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
R654	1-216-809-11	METAL CHIP	100	5%	1/10W	C23	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
R667	1-216-809-11	METAL CHIP	100	5%	1/10W	C24	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
		< SWITCH >				C25	1-162-974-11	CERAMIC CHIP	0.01uF		50V
S616	1-771-349-21	SWITCH, TACT (MODE)				C26	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
S617	1-771-349-21	SWITCH, TACT (VOL -)				C27	1-162-974-11	CERAMIC CHIP	0.01uF		50V
S618	1-771-349-21	SWITCH, TACT (VOL +)				C28	1-161-051-00	CERAMIC	0.01uF	10%	25V
*****						C29	1-102-508-91	CERAMIC	10PF	0.5PF	50V
*	A-4542-922-A	SNOOZE BOARD, COMPLETE				C30	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
		*****				C31	1-102-978-00	CERAMIC	220PF	5%	50V
		< RESISTOR >				C32	1-164-361-11	CERAMIC CHIP	0.047uF		25V
R646	1-216-845-11	METAL CHIP	100K	5%	1/10W	C33	1-164-156-11	CERAMIC CHIP	0.1uF		25V
R647	1-216-849-11	METAL CHIP	220K	5%	1/10W	C34	1-164-156-11	CERAMIC CHIP	0.1uF		25V
		< SWITCH >				C35	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
S615	1-762-196-21	SWITCH, TACT (SNOOZE, SLEEP OFF)				C36	1-115-871-11	ELECT	1uF	20%	50V
*****						C37	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
						C39	1-115-871-11	ELECT	1uF	20%	50V
						C40	1-164-156-11	CERAMIC CHIP	0.1uF		25V
						C41	1-164-156-11	CERAMIC CHIP	0.1uF		25V
						C42	1-162-974-11	CERAMIC CHIP	0.01uF		50V
						C43	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
						C51	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
						C52	1-162-974-11	CERAMIC CHIP	0.01uF		50V
						C53	1-164-156-11	CERAMIC CHIP	0.1uF		25V
						C54	1-162-974-11	CERAMIC CHIP	0.01uF		50V

TUNER

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
C55	1-162-927-11	CERAMIC CHIP	100PF	5%	50V								
C56	1-162-927-11	CERAMIC CHIP	100PF	5%	50V			< FERRITE BEAD >					
C57	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		FB4	1-469-701-21	FERRITE, EMI (SMD) (1608)				
C58	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		FB5	1-469-701-21	FERRITE, EMI (SMD) (1608)				
C59	1-162-927-11	CERAMIC CHIP	100PF	5%	50V								
C60	1-162-927-11	CERAMIC CHIP	100PF	5%	50V			< IC >					
C61	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		IC1	6-700-512-01	IC TA2149BN				
C62	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V		IC2	8-759-483-40	IC LC72137M-TLM-E				
C63	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V								
C64	1-162-974-11	CERAMIC CHIP	0.01uF		50V			< SHORT >					
C65	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V								
C66	1-126-176-11	ELECT	220uF	20%	10V		JC1	1-216-864-11	SHORT CHIP	0			
C67	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V		JC2	1-216-864-11	SHORT CHIP	0			
C68	1-137-194-11	FILM	0.47uF	5%	50V		JC3	1-216-864-11	SHORT CHIP	0			
C69	1-162-911-11	CERAMIC CHIP	6PF	0.5PF	50V		JC4	1-216-864-11	SHORT CHIP	0			
C70	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V		JC5	1-216-864-11	SHORT CHIP	0			
C71	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V		JC6	1-216-864-11	SHORT CHIP	0			
C72	1-126-786-11	ELECT	47uF	20%	16V		JC7	1-216-864-11	SHORT CHIP	0			
C75	1-164-361-11	CERAMIC CHIP	0.047uF		25V		JC8	1-216-864-11	SHORT CHIP	0			
C76	1-162-911-11	CERAMIC CHIP	6PF	0.5PF	50V		JC9	1-216-864-11	SHORT CHIP	0			
C77	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V		JC10	1-216-864-11	SHORT CHIP	0			
C83	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V		JC12	1-216-864-11	SHORT CHIP	0			
C85	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V			< COIL >					
C86	1-162-995-11	CERAMIC CHIP	0.022uF		50V								
C87	1-164-361-11	CERAMIC CHIP	0.047uF		25V		L1	1-419-856-11	COIL, AIR-CORE				
C89	1-162-919-11	CERAMIC CHIP	22PF	5%	50V		L2	1-419-857-11	COIL, AIR-CORE				
C90	1-162-960-11	CERAMIC CHIP	220PF	10%	50V		L3	1-419-854-11	COIL, AIR-CORE				
C91	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		L4	1-419-855-11	COIL, AIR-CORE				
C92	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		L5	1-754-117-12	ANTENNA, FERRITE-ROD (MW)				
		< FILTER >					L6	1-411-234-21	COIL, AM OSC				
							L11	1-410-509-11	INDUCTOR	10uH			
CF2	1-795-215-21	FILTER, CERAMIC					L12	1-410-509-11	INDUCTOR	10uH			
CF4	1-781-962-21	FILTER, CERAMIC					L13	1-410-509-11	INDUCTOR	10uH			
		< CONNECTOR >					L14	1-410-509-11	INDUCTOR	10uH			
* CNP2	1-785-663-11	PIN, CONNECTOR (PC BOARD) 11P					L15	1-410-509-11	INDUCTOR	10uH			
		< TRIMMER >					L16	1-410-501-11	INDUCTOR	2.2uH			
							L17	1-410-509-11	INDUCTOR	10uH			
							L31	1-410-509-11	INDUCTOR	10uH			
								< TRANSISTOR >					
CT2	1-141-304-21	CAP, CERAMIC TRIMMER					Q11	8-729-054-02	TRANSISTOR	KRA302-RTK			
CT3	1-141-304-21	CAP, CERAMIC TRIMMER					Q12	8-729-054-02	TRANSISTOR	KRA302-RTK			
CT4	1-141-304-21	CAP, CERAMIC TRIMMER					Q13	8-729-055-18	TRANSISTOR	2N3906U-RTK			
CT5	1-141-304-21	CAP, CERAMIC TRIMMER					Q14	8-729-055-16	TRANSISTOR	KTC4082-RTK			
		< DIODE >						< RESISTOR >					
D1	8-719-078-48	DIODE KV1471ETR1-3											
D2	8-719-078-48	DIODE KV1471ETR1-3					R1	1-216-817-11	METAL CHIP	470	5%	1/10W	
D3	8-719-050-69	DIODE KV1520N					R2	1-216-815-11	METAL CHIP	330	5%	1/10W	
D10	8-719-988-61	DIODE 1SS355TE-17					R3	1-216-833-11	METAL CHIP	10K	5%	1/10W	
D11	8-719-988-61	DIODE 1SS355TE-17					R5	1-216-817-11	METAL CHIP	470	5%	1/10W	
D13	8-719-082-21	DIODE KDS112-RTK					R6	1-216-809-11	METAL CHIP	100	5%	1/10W	
D14	8-719-082-22	DIODE KDS114-RTK					R11	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	
D15	8-719-082-22	DIODE KDS114-RTK					R12	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	
D17	8-719-082-22	DIODE KDS114-RTK					R15	1-216-819-11	METAL CHIP	680	5%	1/10W	
D21	8-719-082-07	DIODE KDS121-RTK					R16	1-216-821-11	METAL CHIP	1K	5%	1/10W	
D22	8-719-082-08	DIODE KDZ3.3V-RTK					R17	1-216-845-11	METAL CHIP	100K	5%	1/10W	
D23	8-719-988-61	DIODE 1SS355TE-17					R18	1-216-819-11	METAL CHIP	680	5%	1/10W	
D24	8-719-082-21	DIODE KDS112-RTK					R19	1-216-821-11	METAL CHIP	1K	5%	1/10W	

TUNER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R20	1-216-833-11	METAL CHIP	10K 5% 1/10W	SP101	1-825-679-11	SPEAKER (5.0cm)	
R22	1-216-864-11	SHORT CHIP	0	SP201	1-825-679-11	SPEAKER (5.0cm)	
R23	1-216-817-11	METAL CHIP	470 5% 1/10W	*****			
R24	1-216-835-11	METAL CHIP	15K 5% 1/10W			ACCESSORIES	
R25	1-216-864-11	SHORT CHIP	0			*****	
R26	1-216-827-11	METAL CHIP	3.3K 5% 1/10W				
R31	1-216-841-11	METAL CHIP	47K 5% 1/10W				
R33	1-216-849-11	METAL CHIP	220K 5% 1/10W		3-262-864-21	MANUAL, INSTRUCTION (ENGLISH)	
R37	1-216-817-11	METAL CHIP	470 5% 1/10W				
R41	1-216-845-11	METAL CHIP	100K 5% 1/10W				
R42	1-216-845-11	METAL CHIP	100K 5% 1/10W				
R51	1-216-825-11	METAL CHIP	2.2K 5% 1/10W				
R52	1-216-825-11	METAL CHIP	2.2K 5% 1/10W				
R53	1-216-825-11	METAL CHIP	2.2K 5% 1/10W				
R54	1-216-825-11	METAL CHIP	2.2K 5% 1/10W				
R55	1-216-821-11	METAL CHIP	1K 5% 1/10W				
R58	1-216-821-11	METAL CHIP	1K 5% 1/10W				
R59	1-216-825-11	METAL CHIP	2.2K 5% 1/10W				
R61	1-216-813-11	METAL CHIP	220 5% 1/10W				
R62	1-216-821-11	METAL CHIP	1K 5% 1/10W				
R63	1-216-819-11	METAL CHIP	680 5% 1/10W				
R64	1-216-833-11	METAL CHIP	10K 5% 1/10W				
R66	1-216-821-11	METAL CHIP	1K 5% 1/10W				
R67	1-216-845-11	METAL CHIP	100K 5% 1/10W				
R68	1-216-829-11	METAL CHIP	4.7K 5% 1/10W				
R69	1-216-833-11	METAL CHIP	10K 5% 1/10W				
R70	1-216-837-11	METAL CHIP	22K 5% 1/10W				
R71	1-216-809-11	METAL CHIP	100 5% 1/10W				
R72	1-216-827-11	METAL CHIP	3.3K 5% 1/10W				
R73	1-216-845-11	METAL CHIP	100K 5% 1/10W				
R74	1-216-821-11	METAL CHIP	1K 5% 1/10W				
R75	1-216-833-11	METAL CHIP	10K 5% 1/10W				
R79	1-216-864-11	SHORT CHIP	0				
R81	1-216-809-11	METAL CHIP	100 5% 1/10W				
R82	1-216-809-11	METAL CHIP	100 5% 1/10W				
R84	1-216-829-11	METAL CHIP	4.7K 5% 1/10W				
< TRANSFORMER >							
T1	1-433-741-11	TRANSFORMER, IF					
T2	1-419-465-11	COIL (DET)					
< VIBRATOR >							
X61	1-781-592-11	VIBRATOR, CRYSTAL (75kHz)					

MISCELLANEOUS							

110	1-829-092-11	CABLE, FLEXIBLE FLAT (18 CORE)					
151	3-262-683-01	CASE (LCD), SHIELD					
152	3-267-408-01	ILLUMINATOR					
153	3-262-678-01	HOLDER (LCD)					
202	1-829-091-11	CABLE, FLEXIBLE FLAT (20 CORE)					
204	1-829-090-11	CABLE, FLEXIBLE FLAT (14 CORE)					
△ 305	1-468-809-11	POWER UNIT					
* 401	A-4902-666-A	MD ASSY (900AAA-RP)					
		(including M701, M702)					
△ 406	8-820-137-02	OPTICAL PICK-UP KSS-900A/C2RP					
ANT1	1-754-329-11	ANTENNA, FM WIRE					

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

REVISION HISTORY

Clicking the version allows you to jump to the revised page.

Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

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